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## CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 76

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

November 1, 1953

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

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In conjunction with the F.K.I. Continuous Baseline Study, one-hundred and nine different sample lots of 42-lb. Fourdrinier kraft linerboard were submitted by fourteen different F.K.I. mills to The Institute of Paper Chemistry for testing during the period October 1 through October 31. In addition to the 42-lb. kraft linerboard, two samples of special drum stock and one sample of 90-lb. linerboard were also submitted for evaluation by one of the participating mills. The results on the special stock are tabulated separately in this report. A tabulation of the number of samples classified according to mill may be seen in Table I.

TABLE I  
DISTRIBUTION OF 42-LB. LINERBOARD SAMPLES

Mill Code	Samples Submitted
A	10
B	20
C	8
D	10
E	3
F	8
G	8
H	6
I	8
J	4
K	0
L	8
M	5
N	9
O	2
	<hr/> 109

These sample lots were tested for basis weight, caliper, bursting strength, G. E. puncture, and Elmendorf tear. The average strength results for each mill may be seen in Table II and are graphically presented in Figures 1 to 6. In addition to a comparison of the mill averages for the various tests, Table II also shows the current F.K.I. averages, the cumulative F.K.I. averages, and the F.K.I. indexes. The cumulative F.K.I. average includes all the results up to but not including the current period; the current period in the case of this report is October 1 through October 31. The F.K.I. indexes are obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index (\%)}$$

The F.K.I. index provides a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 43.0 lb., and the cumulative F.K.I. average basis weight is 43.1 lb. Hence, the index for basis weight determined in per cent as indicated above is 99.8. This signifies that the current average basis weight is slightly lower than the cumulative average, which in this case covered the period from July 25, 1947, through September 30, 1953.

A comparison of the results in Table II and Figure 1 shows that the average basis weight results for all mills except O conform to the 42-lb. specification set forth in Rule 41. Mill G has the highest average basis weight, it being 45.1 lb. or approximately 7.4% higher than the 42-lb. specification. On the other hand, Mill O has

the lowest average basis weight, it being 41.5 lb., approximately 1.2% lower than the 42-lb. specification.

The amount by which the mills vary from the 42-lb. specification is as follows:

Mill Code	Per Cent
A	+1.7
B	+3.1
C	+4.3
D	+3.1
E	+2.1
F	0
G	+7.4
H	+2.4
I	+2.4
J	+1.4
K	—
L	+2.9
M	+2.1
N	+0.5
O	-1.2

A comparison of the average basis weight data for the previous period with the current F.K.I. average indicates that the basis weight results have increased slightly.

A comparison of the average caliper values for the various Mills (see Figure 2) shows that the mill averages vary from a low of 12.2 for Mill O to a high of 14.8 for Mill E, the average being 13.2 which is somewhat lower than the cumulative average of 13.9.

The average bursting strength values obtained for each mill are graphically presented in Figure 3. It may be observed in Table II that the average bursting strength values for the various mills range

from a low of 99 for Mill E to a high of 120 for Mill G. The current F.K.I. average bursting strength is 107, slightly higher than the cumulative average of 106.

The data of Table II and Figure 4 show that the average G. E. puncture result for all mills is 33 units. Mill D has the highest G. E. puncture average, 35 units; Mills B and N have the lowest average, 30 units. The current F.K.I. G. E. puncture average of 33 units is lower than the cumulative F.K.I. average of 36 units.

A graphic comparison of the Elmendorf tear results for the various mills is given in Figures 5 and 6. The data of Table II show that Mill F has the highest average machine direction tear value while Mill B has the lowest. Mill F also has the highest average cross-machine direction tear value, whereas Mill E has the lowest value. It may be noted that the current F.K.I. average machine and cross-machine direction tear results are lower than the cumulative averages.

A comparison of the F.K.I. indexes indicates that, for the current period, the current F.K.I. averages for basis weight, caliper, G. E. puncture and Elmendorf tear are lower than the respective cumulative F.K.I. averages, whereas the current F.K.I. average for bursting strength is higher.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XVII for Mills A to O, respectively. In addition to the current and cumulative averages, the mill factor and mill index are given for

each mill. The cumulative mill average is the average test result obtained on the samples submitted by the particular mill up to, but not including, the current average. The mill factor and the mill index are obtained as follows:

$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor } (\%)$$

$$\frac{\text{current mill average}}{\text{cumulative F.K.I. average}} \times 100 = \text{mill index } (\%)$$

The mill factor and the mill index serve as a ready means for comparing the current mill results either with the previous results for that particular mill or with the cumulative F.K.I. results. As the test data accumulate, the factors and indexes acquire added significance. The reports also contain a comparison of the test data obtained at the mills with test data obtained at The Institute of Paper Chemistry.

The results obtained on the special drum stock may be seen in Table XVIII.

It may be noted in Tables III through XVII that the data have been separated on the basis of the sheet finish. The summarized results for the mills which submitted sample lots during the current period are as follows:

Mill Code	No. of Sample Lots		
	W.F.	D.F.	Misc.
A	10 <sup>a</sup>		
B	20 <sup>a</sup>		
C	8		
D	10		
E	3, 2 <sup>b</sup>		

(Continued on next page.)

Mill Code	No. of Sample Lots		
	W.F.	D.F.	Misc.
F	5		3 <sup>c</sup>
G	8		
H	6 <sup>a</sup>		
I	8 <sup>a</sup>		
J			4 <sup>d</sup>
L			8 <sup>c</sup>
M	5 --		
N	3, 4 <sup>a</sup>		2 <sup>c</sup>
O	2		

<sup>a</sup> One side only.

<sup>b</sup> Drum linerboard.

<sup>c</sup> Sheet finish not reported.

<sup>d</sup> Semi-water finish.

The results indicate that a majority of the mills are using  
a water finish on their 42-lb. linerboard.

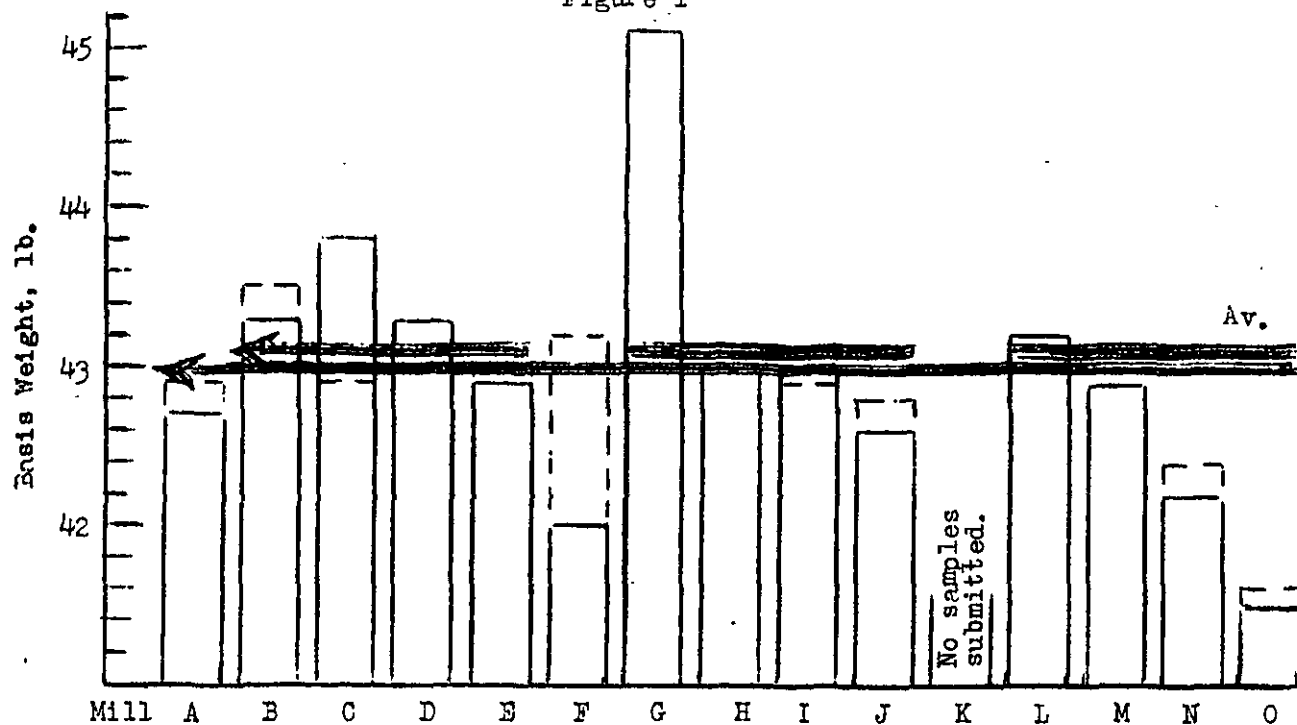


TABLE II

SUMMARY OF COMPOSITE MILL AVERAGES--OCTOBER 1 THROUGH OCTOBER 31, 1953

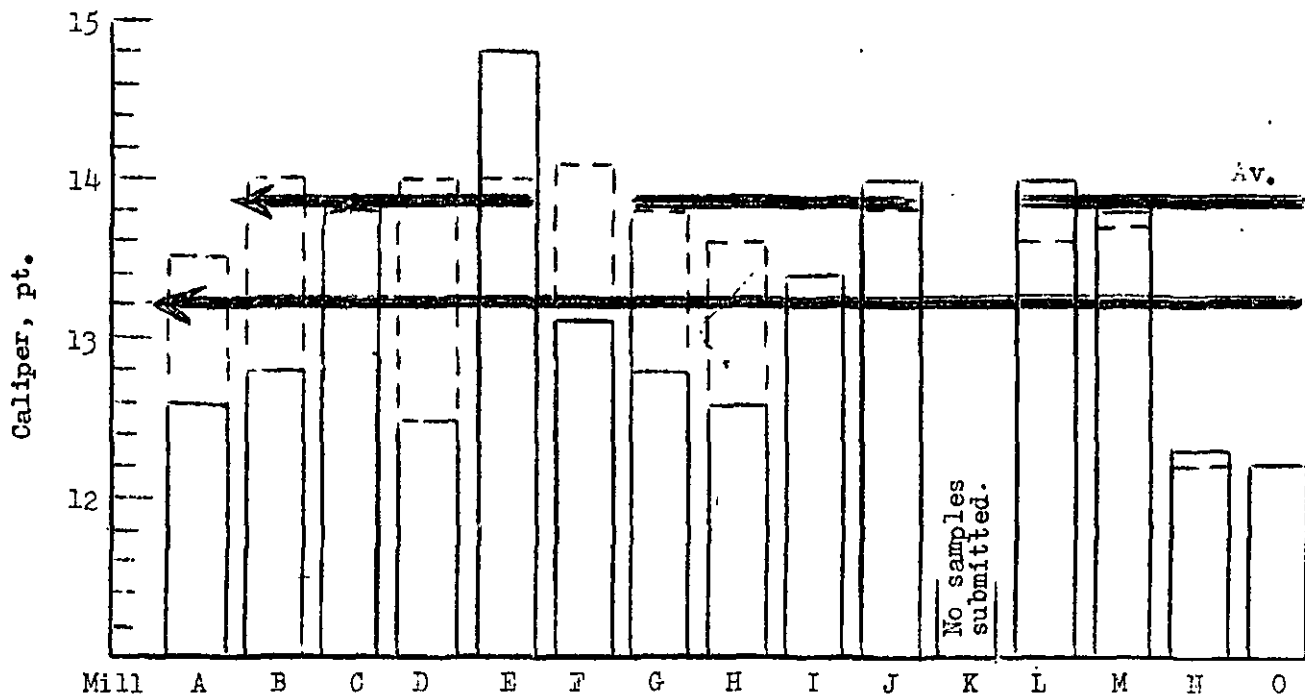
Code No.	Basis Weight, lb.	Caliper, points	Bursting Strength, p.s.i. gage	G. E. Puncture, units	Elmendorf Tear, g./sheet	In Direction Across Direction
A	42.7	12.6	112	33	328	366
B	43.3	12.8	113	30	298	355
C	43.8	13.8	110	34	334	380
D	43.3	12.5	102	35	366	391
E	42.9	14.8	99	31	355	349
F	42.0	13.1	111	34	373	414
G	45.1	12.8	120	33	340	373
H	43.0	12.6	104	31	321	364
I	43.0	13.4	106	31	331	384
J	42.6	14.0	102	32	352	367
K	No samples submitted.					
L	43.2	14.0	104	34	352	384
M	42.9	13.8	107	34	369	389
N	42.2	12.3	106	30	330	371
O	41.5	12.2	106	34	343	367
Current FKI Average:	43.0	13.2	107	33	342	375
Cumulative FKI Average:	43.1	13.9	106	36	370	404
FKI Index, %:	99.8	95.0	100.9	91.7	92.4	92.8

Figure 1



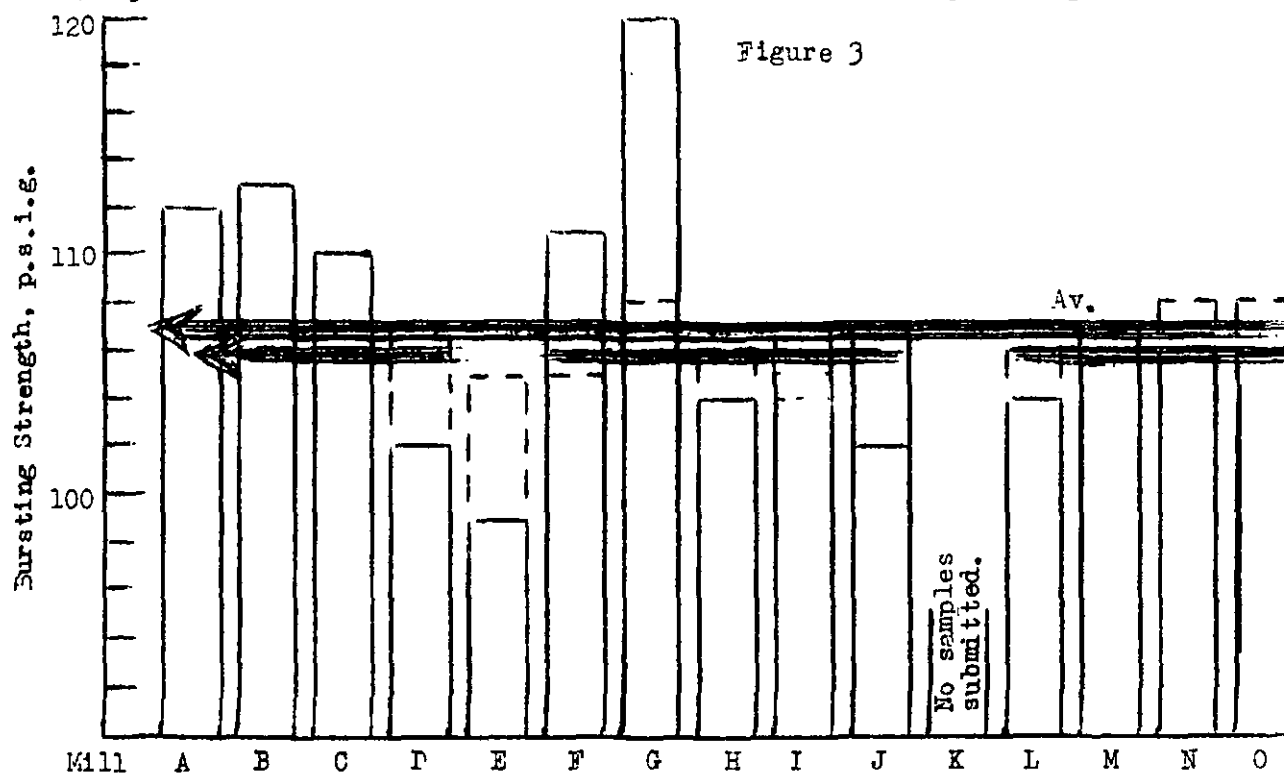
COMPARISON OF BASIS WEIGHT RESULTS  
(Period October 1 - October 31)

Figure 2

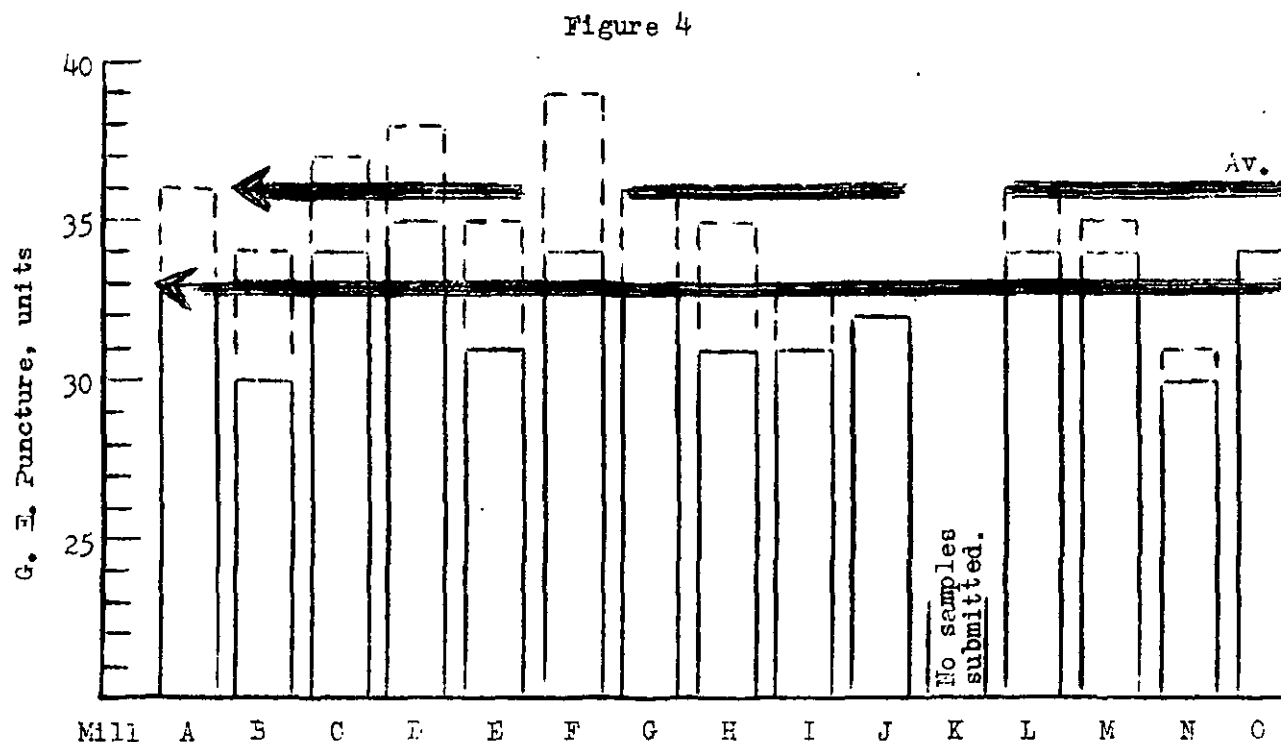


COMPARISON OF CALIPER RESULTS  
(Period October 1 - October 31)

———— Current mill average.  
----- Cumulative mill average.



COMPARISON OF BURSTING STRENGTH RESULTS  
(Period October 1 - October 31)



COMPARISON OF G. E. PUNCTURE RESULTS  
(Period October 1 - October 31)

Figure 5

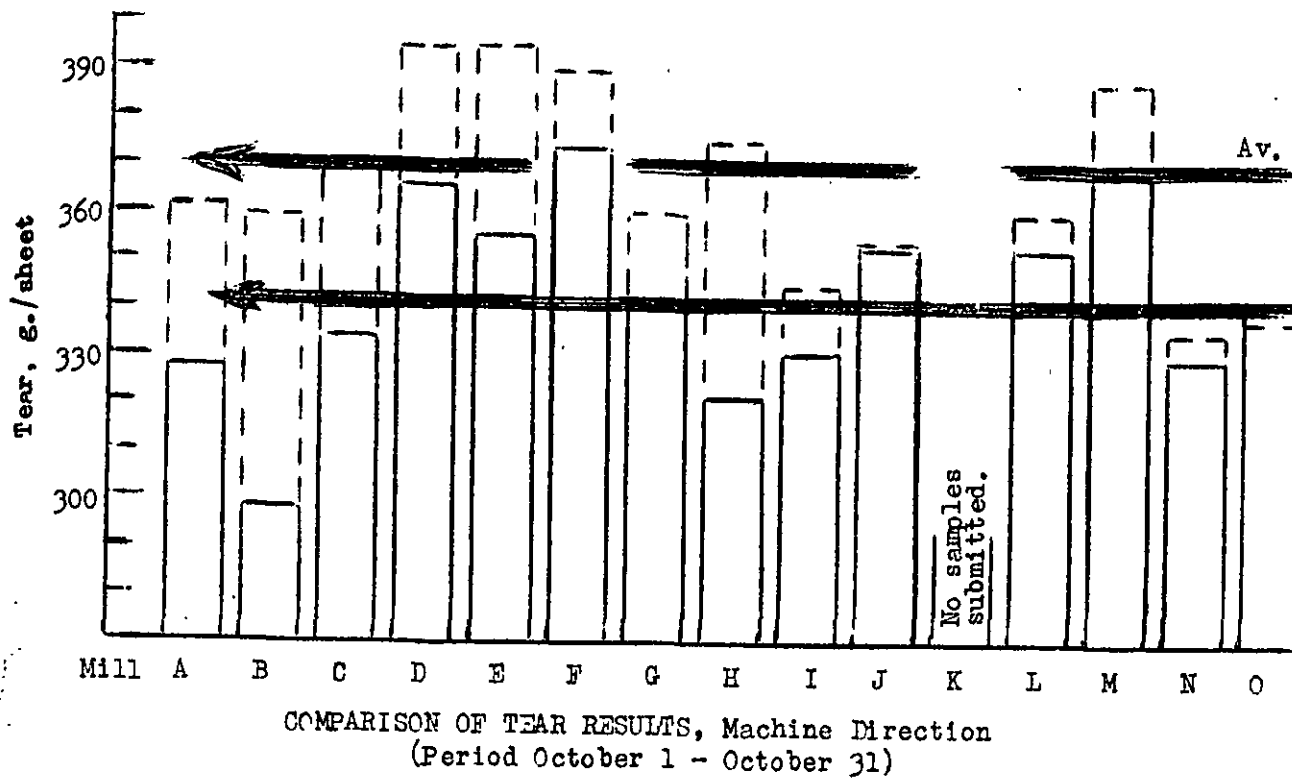


Figure 6

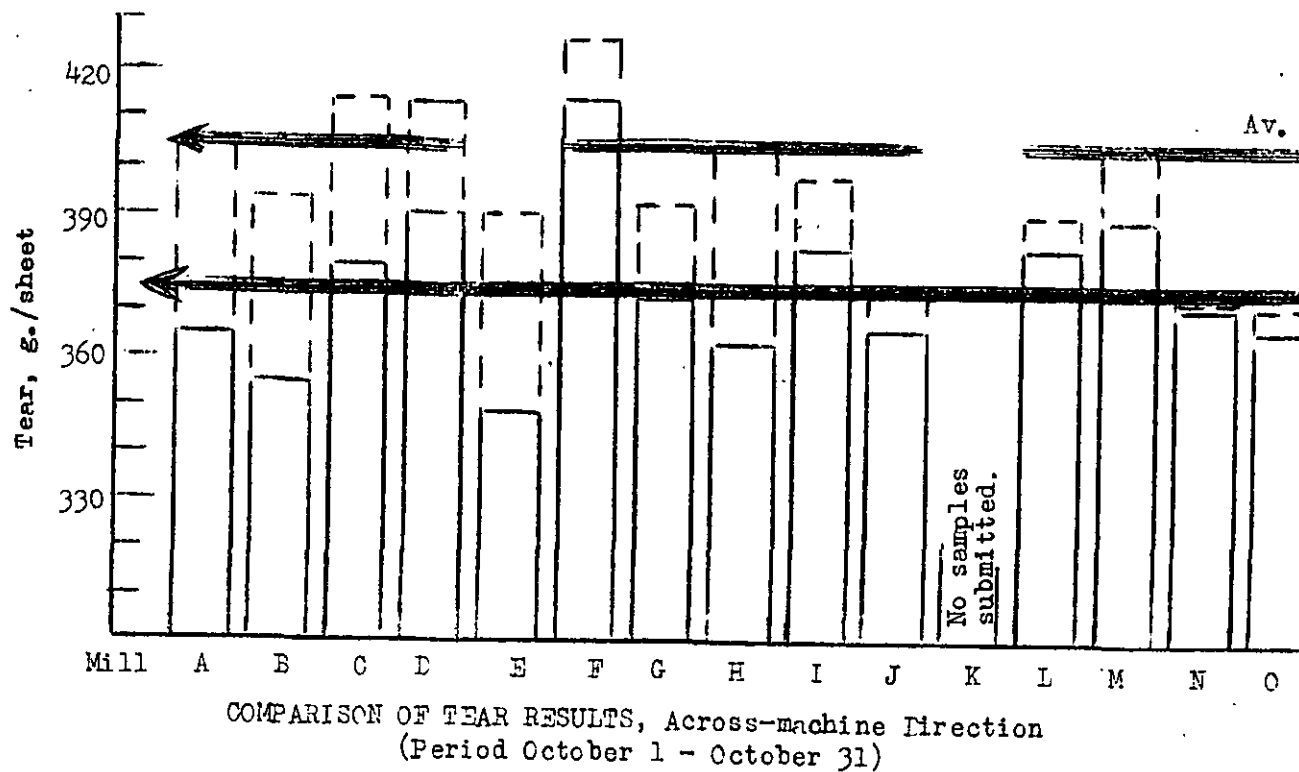


TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953

Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i.		G. E. Puncture, units		Elmendorf Tear, g./sheet		Across					
		Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.				
Mill A--42-lb. Linerboard																	
9/20/53	1	42.2	42.0	12.9	11.9	12.3	142	100	118	38	32	34	296	317a	432	336	385a
9/21/53	1	42.4	41.6	12.8	11.8	12.2	133	87	112	37	32	35	248	325a	424	352	369a
9/30/53	1	44.0	41.8	13.8	13.0	13.1	140	84	108	37	32	34	240	300a	400	312	369a
9/30/53	2	43.6	42.0	13.4	12.9	13.1	133	95	112	34	30	32	264	325a	392	336	369a
10/5/53	1	43.4	42.2	12.9	12.3	12.7	131	79	108	33	29	31	264	317a	400	320	360a
10/5/53	1	43.2	42.2	12.9	11.5	12.4	133	80	111	34	28	31	280	316a	416	320	363a
10/13/53	2	44.0	42.4	13.4	12.5	13.0	138	85	112	36	30	32	248	313a	384	320	361a
10/15/53	2	44.2	42.6	13.2	12.1	12.9	137	80	112	40	34	37	304	365a	416	344	343a
10/18/53	1	42.4	41.8	12.5	11.5	12.0	132	81	111	34	30	32	288	347a	400	304	349a
10/20/53	1	43.2	42.0	12.4	11.5	11.9	138	94	117	36	30	32	320	358a	384	336	358a
		42.7		12.6				112		33		328				366	
		42.9		13.5				107		36		361				405	
		99.5		93.3				104.7		91.7		90.9				90.4	
		99.1		90.6				105.7		91.7		88.6				90.6	

gs for one or more specimens which tore beyond the 3/8-inch limit.

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmer's In			
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill A--42-lb. Linerboard																	
155701	A-484	WF1S	10/ 1/53	9/20/53	1	42.2	42.0	12.9	11.9	12.3	142	100	118	38	34	344	296
155702	A-485	WF1S	10/ 1/53	9/21/53	1	42.4	42.2	12.8	11.8	12.2	133	87	112	37	35	400	248
155782	A-486	WF1S	10/ 8/53	9/30/53	1	44.0	43.2	13.8	13.0	13.1	140	84	108	37	34	344	240
155783	A-487	WF1S	10/ 8/53	9/30/53	2	43.6	42.0	13.4	12.9	13.1	133	95	112	34	32	376	264
155861	A-488	WF1S	10/14/53	10/ 5/53	1	43.4	42.2	12.9	12.3	12.7	131	79	108	33	31	352	264
155862	A-489	WF1S	10/14/53	10/ 5/53	1	43.2	42.2	12.9	11.5	12.4	133	80	111	34	31	352	280
155900	A-490	WF1S	10/20/53	10/13/53	2	44.0	42.4	13.4	12.5	13.0	138	85	112	36	32	368	248
155901	A-491	WF1S	10/20/53	10/15/53	2	44.2	42.6	13.2	12.1	12.9	137	80	112	40	37	464	304
155958	A-492	WF1S	10/23/53	10/18/53	1	42.4	41.8	12.5	11.5	12.0	132	81	111	34	32	392	288
155959	A-493	WF1S	10/23/53	10/20/53	1	43.2	42.0	12.4	11.5	11.9	138	94	117	36	32	448	320
Current Mill Average:						42.7		12.6					112		33		
Cumulative Mill Average:						42.9		13.5					107		36		
Mill Factor, %:						99.5		93.3					104.7		91.7		
Mill Index, %:						99.1		90.6					105.7		91.7		

<sup>a</sup> This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IV

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet									
		Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.						
Mill B--42-lb. Linerboard																			
1/15/53	1	45.4	42.0	43.1	13.9	12.0	12.6	137	102	118	33	28	31	336	256	292a	384	320	351a
1/15/53	1	44.4	42.0	42.9	13.8	12.1	12.8	131	108	120	32	26	29	304	248	284a	392	352	362a
1/15/53	1	44.4	42.2	43.0	13.3	12.0	12.7	132	100	116	33	28	30	360	280	319a	400	336	369a
1/15/53	1	45.0	42.2	43.2	13.3	11.2	12.7	133	100	116	33	28	30	344	272	309a	440	328	369a
2/2/53	1	44.4	42.0	43.3	13.9	12.5	13.1	134	104	117	33	28	30	322	256	288	411	317	362a
2/22/53	1	45.0	42.8	43.7	13.6	12.2	13.1	130	99	116	32	28	30	368	256	315a	416	336	357a
2/22/53	1	44.8	42.2	43.2	13.6	12.7	13.1	132	100	116	31	26	29	336	272	307a	416	320	362a
2/22/53	1	44.4	42.0	43.3	13.6	12.0	13.1	140	88	113	31	28	30	328	272	294	384	336	360a
2/28/53	1	44.2	42.0	42.9	13.0	12.1	12.7	135	100	117	33	28	30	344	256	298	360	304	341a
2/28/53	1	44.2	42.0	42.9	13.0	12.0	12.5	139	91	120	33	28	31	376	248	302a	400	336	359a
2/28/53	1	45.0	42.2	43.5	13.6	12.3	13.1	144	101	115	33	28	30	328	272	295a	392	320	355a
2/28/53	1	44.4	42.6	43.6	13.8	12.4	13.1	135	103	115	32	28	29	336	272	299a	400	320	362a
1/6/53	1	43.6	42.2	43.0	13.2	12.2	12.7	125	80	107	30	26	28	312	256	282	384	304	351a
1/6/53	1	44.4	42.6	43.6	13.5	12.2	12.9	127	90	108	31	26	28	336	232	287a	368	320	345a
1/6/53	1	43.2	42.0	42.6	13.4	12.2	12.8	124	91	106	31	27	29	336	240	285a	424	304	347a
1/6/53	1	44.0	42.0	43.2	13.2	12.1	12.7	124	89	107	32	27	30	312	224	273	360	304	329a
1/12/53	1	44.0	42.8	43.7	13.4	12.3	12.9	131	98	111	32	28	31	392	248	303a	384	320	354a
1/12/53	1	44.2	42.6	43.6	13.8	12.2	12.9	135	79	106	34	28	31	344	272	304a	376	328	347a
1/12/53	1	44.0	42.6	43.5	13.2	12.0	12.7	126	80	109	33	28	30	344	264	303a	400	336	357a
1/12/53	1	44.4	42.8	43.5	13.3	12.3	12.8	124	81	106	32	27	30	336	288	315a	384	320	359a
				43.3		12.8			113			30				298		355	
				43.5		14.0			106			34				359		394	
				99.5		91.4			106.6			88.2				83.0		90.1	
				100.5		92.1			106.6			83.3				80.5		87.9	

gs for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IV

## SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

File No.	Mill Code	Fish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmz In		
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.		Av.	
Mill B--42-lb. Linerboard																
155703	B-875	WFLS	10/ 1/53	9/15/53	1	45.4	42.0	43.1	13.9	12.0	12.6	137	102	118	336	256
155704	B-876	WFLS	10/ 1/53	9/15/53	1	44.4	42.0	42.9	13.8	12.1	12.8	131	108	120	304	248
155705	B-877	WFLS	10/ 1/53	9/15/53	1	44.4	42.2	43.0	13.3	12.0	12.7	132	100	116	360	280
155706	B-878	WFLS	10/ 1/53	9/15/53	1	45.0	42.2	43.2	13.3	11.2	12.7	133	100	116	344	272
155754	B-879	WFLS	10/ 6/53	9/22/53	1	44.4	42.0	43.3	13.9	12.5	13.1	134	104	117	322	256
155755	B-880	WFLS	10/ 6/53	9/22/53	1	45.0	42.8	43.7	13.6	12.2	13.1	130	99	116	368	256
155756	B-881	WFLS	10/ 6/53	9/22/53	1	44.8	42.2	43.2	13.6	12.7	13.1	132	100	116	336	272
155757	B-882	WFLS	10/ 6/53	9/22/53	1	44.4	42.0	43.3	13.6	12.0	13.1	140	88	113	328	272
155816	B-883	WFLS	10/12/53	9/28/53	1	44.2	42.0	42.9	13.0	12.1	12.7	135	100	117	344	256
155817	B-884	WFLS	10/12/53	9/28/53	1	44.2	42.0	42.9	13.0	12.0	12.5	139	91	120	376	248
155818	B-885	WFLS	10/12/53	9/28/53	1	45.0	42.2	43.5	13.6	12.3	13.1	144	101	115	328	272
155819	B-886	WFLS	10/12/53	9/28/53	1	44.4	42.6	43.6	13.8	12.4	13.1	135	103	115	336	272
155820	B-887	WFLS	10/12/53	10/ 6/53	1	43.6	42.2	43.0	13.2	12.2	12.7	125	80	107	312	256
155821	B-888	WFLS	10/12/53	10/ 6/53	1	44.4	42.6	43.6	13.5	12.2	12.9	127	90	108	336	232
155822	B-889	WFLS	10/12/53	10/ 6/53	1	43.2	42.0	42.6	13.4	12.2	12.8	124	91	106	336	240
155823	B-890	WFLS	10/12/53	10/ 6/53	1	44.0	42.0	43.2	13.2	12.1	12.7	124	89	107	312	224
155902	B-891	WFLS	10/20/53	10/12/53	1	44.0	42.8	43.7	13.4	12.3	12.9	131	98	111	392	248
155903	B-892	WFLS	10/20/53	10/12/53	1	44.2	42.6	43.6	13.8	12.2	12.9	135	79	106	344	272
155929	B-893	WFLS	10/21/53	10/12/53	1	44.0	42.6	43.5	13.2	12.0	12.7	126	80	109	344	264
155904	B-894	WFLS	10/20/53	10/12/53	1	44.4	42.8	43.5	13.3	12.3	12.8	124	81	106	336	288
Current Mill Average:								43.3		12.8				113	30	
Cumulative Mill Average:								43.5		14.0				106	34	
Mill Factor, %:								99.5		91.4				106.6	88.2	
Mill Index, %:								100.5		92.1				106.6	83.3	

<sup>a</sup> This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.



TABLE V

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Date	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		Av.							
		Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.									
											Max.		Min.	Av.	Max.	Min.	Av.		
Mill C--42-lb. Linerboard																			
2/53	1	46.0	43.0	44.4	15.3	13.9	14.8	126	82	102	40	34	38	400	304	357a	480	368	407a
2/53	1	46.2	43.0	44.3	15.2	13.8	14.5	123	80	104	39	36	37	416	272	359a	432	368	393a
5/53	1	45.0	42.4	43.5	13.6	12.0	13.0	133	97	112	35	28	32	360	280	313a	400	320	363a
5/53	1	44.4	42.4	43.4	13.7	11.5	12.9	132	89	114	35	31	33	360	288	316	416	336	365a
5/53	1	44.4	42.0	43.1	14.1	12.8	13.6	137	94	116	39	32	34	392	296	329a	448	344	387a
6/53	1	44.2	42.4	43.1	14.6	12.9	13.7	131	89	112	39	31	34	400	288	329	416	328	376a
7/53	1	46.2	43.6	44.6	15.0	13.1	14.0	132	90	112	37	30	33	384	296	335	416	336	370a
7/35	1	45.6	42.8	44.2	14.7	13.6	14.2	138	90	109	37	29	33	368	304	333	408	352	377a
				43.8			13.8			110			34			334			380
				42.9			13.9			107			37			369			414
				102.1			99.3			102.8			91.9			90.5			91.8
				101.6			99.3			103.8			94.4			90.3			94.1

gs for one or more specimens which tore beyond the 3/8-inch limit.

TABLE V

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Eln In				
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.		Av.	Max.	Min.	Av.
Mill C--42-lb. Linerboard																		
155829	C-507	W.F.	10/12/53	10/ 2/53	1	46.0	43.0	44.4	15.3	13.9	14.8	126	82	40	34	38	400	304
155830	C-508	W.F.	10/12/53	10/ 2/53	1	46.2	43.0	44.3	15.2	13.8	14.5	123	80	39	36	37	416	272
155831	C-509	W.F.	10/12/53	10/ 5/53	1	45.0	42.4	43.5	13.6	12.0	13.0	133	97	35	28	32	360	280
155832	C-510	W.F.	10/12/53	10/ 5/53	1	44.4	42.4	43.4	13.7	11.5	12.9	132	89	35	31	33	360	288
155833	C-511	W.F.	10/12/53	10/ 5/53	1	44.4	42.0	43.1	14.1	12.8	13.6	137	94	39	32	34	392	296
155834	C-512	W.F.	10/12/53	10/ 6/53	1	44.2	42.4	43.1	14.6	12.9	13.7	131	89	39	31	34	400	288
155835	C-513	W.F.	10/12/53	10/ 7/53	1	46.2	43.6	44.6	15.0	13.1	14.0	132	90	37	30	33	384	296
155836	C-514	W.F.	10/12/53	10/ 7/35	1	45.6	42.8	44.2	14.7	13.6	14.2	138	90	37	29	33	368	304
Current Mill Average:						43.8		13.8		110		34						
Cumulative Mill Average:						42.9		13.9		107		37						
Mill Factor, %:						102.1		99.3		102.8		91.9						
Mill Index, %:						101.6		99.3		103.8		94.4						

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VI

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		Av.	Max. Min.	Av.	Max. Min.	Av.	Max. Min.		
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	In	Across								
Mill D--42-lb. Linerboard																		
3/53	44.0	41.2	42.8	13.4	12.2	12.7	124	73	100	40	32	36	400	320	365a	432	320	381a
4/53	46.2	43.6	44.8	14.1	12.8	13.2	116	76	98	41	33	37	448	368	403a	480	352	396a
5/53	43.8	41.6	42.5	12.2	11.3	11.9	129	79	103	37	32	34	384	320	352a	448	336	388a
6/53	43.8	42.0	43.0	12.7	11.4	12.1	122	84	106	37	32	34	408	336	367a	400	344	381a
7/53	43.8	41.0	42.4	12.9	11.8	12.2	132	65	103	35	30	32	424	320	345a	400	352	380a
8/53	44.0	42.0	42.9	12.6	11.8	12.1	129	79	106	37	30	33	384	304	352a	424	320	391a
9/53	46.4	44.0	45.2	13.3	12.3	12.8	127	74	104	40	34	37	424	336	374a	448	344	404a
10/53	44.6	42.4	43.6	13.0	12.3	12.8	126	80	105	38	32	35	424	320	359a	448	328	402a
11/53	44.2	42.6	43.6	13.2	12.1	12.7	124	80	101	36	30	33	432	304	375a	528	368	417a
12/53	43.2	41.4	42.4	13.0	11.8	12.3	122	74	97	37	31	34	432	320	368a	408	328	365a
13/53			43.3			12.5			102		35				366			391
			43.3			14.0			107		38				394			413
		100.0				89.3			95.3		92.1				92.9			94.7
		100.5				89.9			96.2		97.2				98.9			96.8

s for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VI

## SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf In Min.						
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.					
Mill D--42-lb. Linerboard																				
155763	D-698	W.F.	10/ 7/53	10/ 3/53	4	44.0	41.2	42.8	13.4	12.2	12.7	124	73	100	40	32	36	400	320	36
155764	D-699	W.F.	10/ 7/53	10/ 4/53	4	46.2	43.6	44.8	14.1	12.8	13.2	116	76	98	41	33	37	448	368	40
155781	D-700	W.F.	10/ 8/53	10/ 5/53	4	43.8	41.6	42.5	12.2	11.3	11.9	129	79	103	37	32	34	384	320	35
155804	D-701	W.F.	10/10/53	10/ 7/53	4	43.8	42.0	43.0	12.7	11.4	12.1	122	84	106	37	32	34	408	336	36
155813	D-702	W.F.	10/12/53	10/ 8/53	4	43.8	41.0	42.4	12.9	11.8	12.2	132	65	103	35	30	32	424	320	31
155854	D-703	W.F.	10/14/53	10/ 9/53	4	44.0	42.0	42.9	12.6	11.8	12.1	129	79	106	37	30	33	384	304	35
155855	D-704	W.F.	10/14/53	10/10/53	4	46.4	44.0	45.2	13.3	12.3	12.8	127	74	104	40	34	37	424	336	37
155856	D-705	W.F.	10/14/53	10/11/53	4	44.6	42.4	43.6	13.0	12.3	12.8	126	80	105	38	32	35	424	320	35
155857	D-706	W.F.	10/14/53	10/12/53	4	44.2	42.6	43.6	13.2	12.1	12.7	124	80	101	36	30	33	432	304	37
155877	D-707	W.F.	10/16/53	10/13/53	4	43.2	41.4	42.4	13.0	11.8	12.3	122	74	97	37	31	34	432	320	36
Current Mill Average:						43.3		12.5		102		35		36						
Cumulative Mill Average:						43.3		14.0		107		38		39						
Mill Factor, %:						100.0		89.3		95.3		92.1		9						
Mill Index, %:						100.5		89.9		96.2		97.2		9						

<sup>a</sup> This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

TABLE VII

Date code	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet									
		Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	In	Across	Max.	Min.	Av.				
<u>Mill E--42-lb. Linerboard</u>																			
10/28/53	2	45.6	40.6	43.4	16.7	14.7	15.5	123	74	94	35	27	31	384	336	363a	408	312	358a
10/12/53	2	44.4	40.6	42.4	15.5	13.6	14.7	111	74	87	34	28	32	392	312	356a	400	280	345a
10/19/53	2	44.0	41.6	42.8	15.0	13.9	14.3	136	105	116	33	28	31	400	296	345a	408	256	343a
				42.9			14.8		99				31			355			349
				43.0			14.0		105				35			394			391
				99.8			105.7		94.3				88.6			90.1			89.3
				99.5			106.5		93.4				86.1			95.9			86.4

TABLE VIII

Mill F--42-lb. Linerboard																			
10/53	-	42.6	40.6	41.6	13.0	11.4	12.3	131	99	116	34	30	32	384	320	347a	448	352	398a
11/53	-	44.2	42.0	43.2	13.7	12.3	13.1	143	90	111	39	31	35	416	328	373a	448	352	406a
11/53	1	44.0	40.8	42.2	14.1	13.0	13.5	134	103	113	39	33	36	416	352	372a	512	392	433a
18/53	-	43.4	40.0	41.6	13.4	11.3	12.4	131	72	103	36	32	34	384	328	361a	432	352	403a
22/53	-	43.8	41.6	42.3	14.0	12.5	13.3	130	86	109	37	32	35	400	328	365a	472	368	423a
22/53	-	42.2	40.4	41.5	14.1	12.8	13.4	122	88	108	36	32	33	424	352	383a	472	376	409a
1/53	-	43.4	40.8	42.1	14.2	12.2	13.5	132	100	113	38	32	35	440	344	391a	464	392	429a
1/53	-	42.6	40.2	41.4	14.4	12.9	13.5	125	92	111	38	32	35	432	352	395	456	368	411a
				42.0			13.1			111		34				373			414
				43.2			14.1			105		39				389			427
				97.2			92.9			105.7			87.2			95.9			97.0
				97.4			94.2			104.7			94.4			100.8			102.5

for one or more specimens which tore beyond the 3/8-inch limit.

TABLE VII

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmer In					
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.		Av.	Max.	Min.		
<u>Mill E--42-lb. Linerboard</u>																			
155739	E-34	W.F.	10/ 5/53	9/28/53	2	45.6	40.6	43.4	16.7	14.7	15.5	123	74	94	35	27	31	384	336
155881	E-37	W.F.	10/17/53	10/12/53	2	44.4	40.6	42.4	15.5	13.6	14.7	111	74	87	34	28	32	392	312
155955	E-38	W.F.	10/23/53	10/19/53	2	44.0	41.6	42.8	15.0	13.9	14.3	136	105	116	33	28	31	400	296
Current Mill Average:								42.9			14.8			99			31		
Cumulative Mill Average:								43.0			14.0			105			35		
Mill Factor, %:								99.8			105.7			94.3			88.6		
Mill Index, %:								99.5			106.5			93.4			86.1		

TABLE VIII

Mill F--42-lb. Linerboard																			
155708	F-55	W.F.	10/ 1/53	9/10/53	-	42.6	40.6	41.6	13.0	11.4	12.3	131	99	116	34	30	32	384	320
155770	F-57	W.F.	10/ 7/53	9/11/53	-	44.2	42.0	43.2	13.7	12.3	13.1	143	90	111	39	31	35	416	328
155753	F-58	--	10/ 6/53	9/11/53	1	44.0	40.8	42.2	14.1	13.0	13.5	134	103	113	39	33	36	416	352
155771	F-59	W.F.	10/ 7/53	9/18/53	-	43.4	40.0	41.6	13.4	11.3	12.4	131	72	103	36	32	34	384	328
155772	F-60	--	10/ 7/53	9/22/53	-	43.8	41.6	42.3	14.0	12.5	13.3	130	86	109	37	32	35	400	328
155773	F-61	--	10/ 7/53	9/22/53	-	42.2	40.4	41.5	14.1	12.8	13.4	122	88	108	36	32	33	424	352
155994	F-62	W.F.	10/26/53	10/ 1/53	-	43.4	40.8	42.1	14.2	12.2	13.5	132	100	113	38	32	35	440	344
155995	F-63	W.F.	10/26/53	10/ 1/53	-	42.6	40.2	41.4	14.4	12.9	13.5	125	92	111	38	32	35	432	352
Current Mill Average:								42.0			13.1			111			34		
Cumulative Mill Average:								43.2			14.1			105			39		
Mill Factor, %:								97.2			92.9			105.7			87.2		
Mill Index, %:								97.4			94.2			104.7			94.4		

<sup>a</sup>This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

## TABLE X

Mill H--42-1b. Linerboard

es the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units					
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.				
Mill G--42-lb. Linerboard																	
155711	G-528	W.F.	10/1/53	9/22/53	--	47.2	45.8	46.4	13.5	12.2	12.9	140	103	38	32	36	456
155712	G-529	W.F.	10/1/53	9/22/53	--	47.4	46.0	46.5	13.2	12.7	13.0	142	107	38	32	35	432
155795	G-530	W.F.	10/9/53	9/29/53	--	47.6	45.6	46.5	13.4	12.6	13.0	132	100	36	30	34	368
155796	G-531	W.F.	10/9/53	9/29/53	--	45.6	43.4	44.5	12.9	11.3	12.4	127	90	34	29	31	368
155842	G-532	W.F.	10/13/53	10/7/53	--	47.0	45.0	46.0	12.9	12.2	12.6	145	115	36	32	34	384
155843	G-533	W.F.	10/13/53	10/7/53	--	44.8	42.6	43.9	13.0	12.0	12.3	136	103	33	28	31	384
155898	G-534	W.F.	10/20/53	10/14/53	--	45.0	42.0	43.7	13.9	13.0	13.3	136	90	38	32	35	408
155899	G-535	W.F.	10/20/53	10/14/53	--	44.0	42.0	43.2	13.0	12.1	12.6	143	109	34	28	32	384
Current Mill average:								45.1			12.8		120			33	
Cumulative Mill average:								43.1			13.8		108			36	
Mill Factor, %:								104.6			92.8		111.1			91.7	
Mill Index, %:								104.6			92.1		113.2			91.7	

TABLE X

Mill H--42-lb. Linerboard

155797	H-419	WFLS	10/ 9/53	9/28/53	2	43.8	42.0	42.8	13.0	12.1	12.7	132	77	101	36	28	31	376
155798	H-420	WFLS	10/ 9/53	9/29/53	2	43.8	42.2	43.3	13.1	12.0	12.7	124	79	102	33	28	31	400
155863	H-421	WFLS	10/14/53	10/ 6/53	2	44.0	42.4	43.6	13.0	12.1	12.6	136	75	103	34	28	30	352
155864	H-422	WFLS	10/14/53	10/ 7/53	2	44.4	43.0	43.8	13.1	12.3	12.8	138	76	105	36	29	32	376
155930	H-423	WFLS	10/21/53	10/11/53	2	42.2	41.2	41.8	12.8	12.0	12.4	124	77	105	36	30	33	400
155931	H-424	WFLS	10/21/53	10/12/53	2	43.6	41.8	42.8	12.6	12.0	12.2	130	80	107	35	30	33	384
Current Mill average:								43.0		12.6				104			31	
Cumulative Mill average:								43.0		13.6				106			35	
Mill Factor, %:								100.0		92.6				98.1			88.6	
Mill Index, %:								99.8		90.6				98.1			86.1	
a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.																		

<sup>a</sup> This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.



TABLE XI

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet		In	Across		iv.	Max.	Min.	iv.	Max.	Min.	iv.
		Max.	Min.	iv.	Max.	Min.	iv.	Max.	Min.	iv.	Max.		Min.	iv.							
Mill I--42-lb. Linerboard																					
9/22/53	1	43.6	42.0	42.7	13.6	12.2	13.0	120	86	104	33	28	30	360	280	315a	400	320	374a		
9/23/53	1	43.8	42.2	43.0	14.8	12.9	13.7	121	91	107	35	30	33	368	264	309a	416	344	385a		
9/28/53	1	43.8	42.0	42.7	13.9	12.8	13.2	114	77	102	32	28	30	384	312	342a	416	328	367a		
9/29/53	1	43.4	42.2	42.5	13.7	13.0	13.4	122	93	106	35	29	32	392	280	326a	432	360	394a		
9/6/53	1	43.8	42.0	42.7	13.8	13.1	13.4	125	92	105	34	28	32	376	272	320a	456	368	397a		
10/6/53	1	44.2	43.2	43.8	14.0	13.0	13.5	117	89	105	32	28	31	440	320	362a	416	368	393a		
10/14/53	1	44.2	42.2	43.3	14.0	13.2	13.6	130	88	111	34	28	32	400	304	351	448	352	389a		
10/15/53	1	44.0	42.4	43.2	13.8	13.1	13.3	128	92	108	34	30	32	368	248	321a	424	328	375a		
				43.0			13.4		106				31		331			384			
				42.9			13.4		107				33		344			398			
				100.2			100.0		99.1			93.9				96.2			96.5		
				99.8			96.4		100.0			86.1				89.5			95.0		

TABLE XII

Mill J--42-lb. Linerboard																								
9/22/53	--	43.4	41.2	42.3	14.5	13.8	14.1	117	71	100	32	30	31	432	355a	400	320	356a						
9/22/53	--	43.8	41.6	42.2	14.4	13.6	14.2	112	75	99	34	28	31	384	336a	392	296	352a						
10/2/53	--	44.0	42.0	42.9	14.2	13.5	13.9	125	82	106	36	30	33	384	359a	408	336	382a						
10/2/53	--	44.0	42.0	43.1	14.2	13.1	13.8	131	77	102	34	30	33	416	360a	416	352	378a						
				42.6			14.0		102				32		352			367						
				42.8			13.8		107				32		353			375						
				99.5			101.4		95.3			100.0			99.7			97.9						
				98.8			100.7		96.2			88.9			95.1			90.8						

readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XI

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		EL				
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
Mill I--42-lb. Linerboard																		
155709	I-329	WFLS	10/ 1/53	9/22/53	1	43.6	42.0	42.7	13.6	12.2	13.0	120	86	104	33	28	360	280
155736	I-330	WFLS	10/ 5/53	9/23/53	1	43.8	42.2	43.0	14.8	12.9	13.7	121	91	107	35	30	368	264
155741	I-331	WFLS	10/ 5/53	9/28/53	1	43.8	42.0	42.7	13.9	12.8	13.2	114	77	102	32	28	384	312
155752	I-332	WFLS	10/ 6/53	9/29/53	1	43.4	42.2	42.5	13.7	13.0	13.4	122	93	106	35	29	392	280
155812	I-333	WFLS	10/12/53	10/ 6/53	1	43.8	42.0	42.7	13.8	13.1	13.4	125	92	105	34	28	376	272
155887	I-334	WFLS	10/19/53	10/6/53	1	44.2	43.2	43.8	14.0	13.0	13.5	117	89	105	32	28	440	320
155905	I-335	WFLS	10/20/53	10/14/53	1	44.2	42.2	43.3	14.0	13.2	13.6	130	88	111	34	28	400	304
155906	I-336	WFLS	10/20/53	10/15/53	1	44.0	42.4	43.2	13.8	13.1	13.3	128	92	108	34	30	368	248
Current Mill Average:								43.0			13.4		106			31		
Cumulative Mill Average:								42.9			13.4		107			33		
Mill Factor, %:								100.2			100.0		99.1			93.9		
Mill Index, %:								99.8			96.4		100.0			86.1		

TABLE XII

Mill J--42-lb. Linerboard															
155733	J-449	B.F.	10/ 2/53	9/22/53	--	43.4	41.2	42.3	14.5	13.8	14.1	117	71	100	32
155734	J-450	B.F.	10/ 2/53	9/22/53	--	43.8	41.6	42.2	14.4	13.6	14.2	112	75	99	34
155827	J-451	B.F.	10/12/53	10/ 2/53	--	44.0	42.0	42.9	14.2	13.5	13.9	125	82	106	36
155828	J-452	B.F.	10/12/53	10/ 2/53	--	44.0	42.0	43.1	14.2	13.1	13.8	131	77	102	34
Current Mill Average:						42.6					14.0		102		32
Cumulative Mill Average:						42.8					13.8		107		32
Mill Factor, %:						99.5					101.4		95.3		100.0
Mill Index, %:						98.8					100.7		96.2		88.9

a This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Mill K-42-1b. Linerboard

**No samples submitted.**

Mill L--42-1b. Linerboard

TABLE XV

Mill M--42-lb. Linerboard

9/18/53	4	44.4	42.0	43.1	14.6	13.3	13.9	115	80	98	37	32	35	464	336	402a	424	336	377a
9/24/53	2	43.8	40.0	42.0	14.0	13.3	13.8	119	78	101	36	28	32	408	336	373a	488	352	395a
9/27/53	2	45.0	41.2	42.8	14.3	13.0	13.7	130	75	109	38	33	35	416	312	360a	408	360	387a
10/ 8/53	2	46.8	41.8	44.1	14.5	13.1	13.8	145	100	118	37	30	34	456	320	365a	464	360	403a
8/14/53	2	45.0	40.4	42.4	14.5	13.3	13.8	128	92	107	36	32	33	400	280	344a	316	352	382a
				42.9			13.8			107			34			369		389	
				42.9			13.7			107			35			387		404	
				100.0			100.7			100.0			97.1			95.3			
				99.5			99.3			100.9			94.4			99.7			

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

No samples submitted.

Mill L-42-lb. Linerboard

**Current Mill Average:**

Mill Factor, %:Mill Index, %:

Mill M--42-1b. Linerboard

Current Mill Average:

Cumulative Mill Average:

Mill Factor, %:

Mill Index, %:

\*This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVI  
SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet				Av.					
		Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	In	Max.	Min.	Av.						
Mill N--42-lb. Linerboard																			
9/23/53	1	42.0	40.6	41.6	12.8	11.7	12.1	120	96	105	32	27	29	408	264	340a	424	328	377a
9/26/53	1	42.8	41.0	41.9	13.3	12.0	12.9	119	89	104	32	28	30	384	312	347a	416	344	371a
9/28/53	1	43.0	41.4	42.2	13.5	11.9	12.2	114	86	104	34	30	32	384	272	336a	400	336	376a
10/ 3/53	1	42.4	41.6	42.1	13.0	12.0	12.4	126	88	112	32	28	30	352	280	312a	440	336	389a
10/ 6/53	1	43.8	42.2	43.2	12.5	11.4	12.0	115	88	99	33	26	30	376	272	317a	400	352	371e
10/11/53	1	43.8	42.0	42.6	12.9	11.9	12.2	116	91	106	30	26	28	336	296	318a	376	304	346a
10/15/53	1	42.6	41.8	42.2	12.8	11.9	12.3	121	84	105	33	28	31	376	264	318	384	328	357a
10/15/53	1	43.0	41.0	41.8	12.9	11.8	12.3	121	84	107	33	28	30	368	280	317	400	328	367a
10/20/53	1	43.0	42.0	42.2	12.9	11.6	12.4	134	92	114	35	30	32	432	312	361a	408	352	381a
		42.2			12.3				106			30			330			371	
		42.4			12.2				108			31			335			372	
		99.5			100.8				98.1			96.8			98.5			99.7	
		97.9			88.5				100.0			83.3			89.2			91.8	

tings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVI

## SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength p.s.i. gage		G. E. Puncture, units							
						Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.				
Mill N--42-lb. Linerboard																			
155742	N-26	W.F.	10/ 5/53	9/23/53	1	42.0	40.6	41.6	12.8	11.7	12.1	120	96	105	32	27	29	408	2
155743	N-27	WFLS	10/ 5/53	9/26/53	1	42.8	41.0	41.9	13.3	12.0	12.9	119	89	104	32	28	30	384	3
155744	N-28	---	10/ 5/53	9/28/53	1	43.0	41.4	42.2	13.5	11.9	12.2	114	86	104	34	30	32	384	2
155785	N-29	W.F.	10/ 8/53	10/ 3/53	1	42.4	41.6	42.1	13.0	12.0	12.4	126	88	112	32	28	30	352	2
155826	N-30	WFLS	10/12/53	10/ 6/53	1	43.8	42.2	43.2	12.5	11.4	12.0	115	88	99	33	26	30	376	2
155872	N-31	WFLS	10/16/53	10/11/53	1	43.8	42.0	42.6	12.9	11.9	12.2	116	91	106	30	26	28	336	2
155939	N-32	----	10/22/53	10/15/53	1	42.6	41.8	42.2	12.8	11.9	12.3	121	84	105	33	28	31	376	2
155940	N-33	W.F.	10/22/53	10/15/53	1	43.0	41.0	41.8	12.9	11.8	12.3	121	84	107	33	28	30	368	2
155966	N-34	WFLS	10/24/53	10/20/53	1	43.0	42.0	42.2	12.9	11.6	12.4	134	92	114	35	30	32	432	3
Current Mill Average:						42.2			12.3				106			30			
Cumulative Mill Average:						42.4			12.2				108			31			
Mill Factor, %:						99.5			100.8				98.1			96.8			
Mill Index, %:						97.9			88.5				100.0			83.3			

<sup>a</sup>This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVII

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Date Made	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s i. gage		G. E. Puncture, units		In Elmendorf Tear, g./sheet		Across					
	No. Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.				
<u>Mill 0 -- 42-lb. Linerboard</u>																
2/1/53	3	42.2	40.4	41.5	12.8	12.0	12.3	121	87	108	37	31	33	408	328	369 <sup>a</sup>
2/14/53	3	42.2	39.8	41.6	12.8	11.7	12.1	126	88	104	37	33	35	376	392	364 <sup>a</sup>
				41.5			12.2			106			34			367
				41.6			12.2			108			33			371
				99.8			100.0			98.1			103.0			98.9
				96.3			87.8			100.0			94.4			90.8

lings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVII

## SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting, Strength, p.s i. gage		G. E. Puncture, units		In					
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.		Av.	Max.	Min.		
Mill 0 -- 42-lb. Linerboard																			
155740	0-8	W.F.	10/ 5/53	10/ 1/53	3	42.2	40.4	41.5	12.8	12.0	12.3	121	87	108	37	31	33	408	296
155886	0-9	W.F.	10/19/53	10/14/53	3	42.2	39.8	41.6	12.8	11.7	12.1	126	88	104	37	33	35	376	304
Current Mill Average:																			
						41.5		12.2		106		34							
Cumulative Mill Average:																			
						41.6		12.2		108		33							
Mill Factor, %:																			
						99.8		100.0		98.1		103.0							
Mill Index, %:																			
						96.3		87.8		100.0		94.4							

<sup>a</sup>This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.



TABLE XVIII

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet									
		Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	In	Across	Max.	Min.	Av.				
<u>Mill E -- 44/46-lb. Drum Linerboard</u>																			
10/ 5/53	2	48.4	46.0	47.5	15.9	14.3	15.2	128	88	106	40	26	38	440	320	385 <sup>a</sup>	464	360	399 <sup>a</sup>
10/ 7/53	2	48.0	45.3	46.4	14.9	13.2	14.3	117	74	96	39	36	37	448	368	417 <sup>a</sup>	432	352	389 <sup>a</sup>
				47.0			14.7		101				37				401		394
				47.1			14.4		101				39				437		417
				99.8			102.1		100.0				94.9				91.8		94.5

lings for one or more specimens which tore beyond the 3/8-inch limit.

Mill E -- 90-lb. Linerboard

9/23/53	2	93.4	89.8	91.5	29.3	27.8	28.6	184	137	156	107	92	101	832	656	769 <sup>a</sup>	1072	800	884 <sup>a</sup>
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lings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVIII

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31,

File No.	Mill Code	Fin- ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units					
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.			
<u>Mill E -- 44/46-lb. Drum Linerboard</u>																	
155784	E-35	W.F.	10/ 8/53	10/ 5/53	2	48.4	46.0	47.5	15.9	14.3	15.2	128	88	40	26	38	440
155811	E-36	W.F.	10/12/53	10/ 7/53	2	48.0	45.8	46.4	14.9	13.2	14.3	117	74	39	36	37	448
Current Mill Average:								47.0			14.7			101		37	
Cumulative Mill Average:								47.1			14.4			101		39	
Mill Factor, %:								99.8			102.1			100.0		94.9	

<sup>a</sup>This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Mill E -- 90-lb. Linerboard

155710	E-33	W.F.	10/ 1/53	9/23/53	2	93.4	89.8	91.5	29.3	27.8	28.6	184	137	156	107	92	101	832	6
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<sup>a</sup>This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

As a supplementary part of the Continuous Baseline Study, comparisons of the mill test results with those obtained at The Institute of Paper Chemistry on corresponding samples have been included in this report. As may be noted in Table XIX, the atmospheric conditions used prior to and during the testing period varied considerably.

TABLE XIX

Mill Code	Preconditioning			Conditioning		
	R.H., %	Temp., ° F.	Time, hr.	R.H., %	Temp., ° F.	Time, hr.
A		None		43-69	78-85	—
B	27-55	79-93	0.5	50	70	24-192
C	—	72-78	—		None	
D	30-32	77-78	8	49-52	71-73	16
E		None		61-75	77-84	—
F		None		50-55	68-74	48-144
G		None		50	73	24-36
H		None		50	73	24
I		None		50-55	74-80	—
J		None		50	72-73	0.5
K			No samples submitted.			
L		None		44-79	76-86	—
M		None		47-52	77-79	—
N		None		50	73-74	24
O		None		50	73	2
E*		None		58-80	70-74	—

\* Drum linerboard.

A summary of the mill comparisons for the current period as compared with the previous period may be seen in Tables XX and XXI, respectively. The comparison for the various mills is given in Tables XXII to XXXVI, for the 42-lb. liner samples. A comparison of the special drum stock is given in Table XXXVII. In all the comparisons

given in Tables XX to XXXVII, the Institute's test values have been used as the reference line.

A comparison of the test data in Tables XX and XXI indicates that in the majority of cases there is good agreement between the mill and Institute data. Table XX shows the average difference encountered in the comparison of Institute and mill results for the sample lots submitted by each mill for the current period, as well as the maximum difference encountered in comparing the Institute and mill test results for a given sample lot. In Table XXI, the average differences shown for each test in Table XX have been calculated on a percentage basis for each mill. In addition, for purposes of comparison, the average percentage differences for the preceding two periods are shown.

It may be noted in Table XII that the maximum variation between the average basis weight results of the Institute and those of a given mill on corresponding samples is one per cent for the current period. This figure compares favorably with the maximum variation of two per cent for the preceding two periods. Further, it may be noted that the average basis weight results for Mills D, E, G, H, J, and O are higher than those for the Institute, whereas the results for Mills A, B, C, F, I, L, M, and N are lower. In general, the agreement in basis weight is very good.

The maximum variation in caliper for the current period is seven per cent. Compared with the values for the Institute, the average result for Mill A is higher while the average results for Mills B, C, D, E, F, G, H, I, J, L, M, and N are lower and the result

for Mill O is the same. The accord between Institute and mill caliper values is good with the exception of Mills E and M.

It may be noted in Table XXI that the bursting strength results exhibit a maximum variation of eight per cent for the current period. The average results for Mills B, F, H, I, J, L, and M are higher than those for the Institute, whereas the results for Mills C, E, G, N, and O are lower and the results for Mills A and D are the same. The agreement in bursting strength results is good with the exception of Mill M.

The G. E. puncture results exhibit a maximum variation of six per cent for the current period. Compared with the values for the Institute, the results for Mills A, C, H, I, and J are higher, whereas the results for Mills B, G, and M are lower and the results for Mills E and F are the same. The agreement between the Institute and mill results is good for all mills.

It may be seen in Tables XX and XXI that the average machine direction tear results for Mills B, C, E, F, G, L, N, and O are lower than those for the Institute whereas the results for Mills A, H, and J are the same and the results for the other mills are higher. The maximum variation for the current period is ten per cent. The differences encountered for Mills I and M appear to be excessive.

With regard to the cross-machine direction tear results, it may be noted that the average results for Mills A, C, D, E, F, H, I, J, L, M, N, and O are higher than those for the Institute whereas the

average results for Mills B and G are lower. The maximum variation for the current period is eleven per cent. The differences for Mills I, M, and N appear to be excessive.

TABLE XX  
SUMMARY OF TEST RESULT COMPARISONS  
(Average Mill and Institute Results)

No. Samples Compared	A	B	C	D	E	F	Mills*				J	L	M	N	O
							G	H	I						
	10	20	8	10	3	8	8	6	8	4	8	5	9	2	
	<u>Basis Weight</u>														
Institute	42.7	43.3	43.8	43.3	42.9	42.0	45.1	43.0	43.0	42.6	43.2	42.9	42.2	41.5	
Mill	42.6	42.9	43.6	43.4	43.1	41.8	45.3	43.4	42.5	43.2	43.1	42.4	42.0	41.8	
Av. Diff.**	-0.1	-0.4	-0.2	+0.1	+0.2	-0.2	+0.2	+0.4	-0.5	+0.6	-0.1	-0.5	-0.2	+0.3	
Max. Diff.***	-0.6	-0.8	-0.4	+0.9	+1.0	-0.7	+0.6	+1.0	-1.5	+0.8	+0.5	-1.0	-0.8	+0.3	
	<u>Caliper</u>														
Institute	12.6	12.8	13.8	12.5	14.8	13.1	12.8	12.6	13.4	14.0	14.0	13.8	12.3	12.2	
Mill	12.7	12.7	13.6	12.3	13.7	12.6	12.6	12.4	13.1	13.9	13.7	12.8	12.0	12.2	
Av. Diff.**	+0.1	-0.1	-0.2	-0.2	-1.1	-0.5	-0.2	-0.2	-0.3	-0.1	-0.3	-1.0	-0.3	0.0	
Max. Diff.***	+0.3	-0.4	-0.3	-0.5	-1.4	-0.7	-0.5	-0.3	-0.7	-0.2	-0.7	-1.1	-0.4	0.0	
	<u>Bursting Strength</u>														
Institute	112	113	110	102	99	111	120	104	106	102	104	107	106	106	
Mill	112	114	109	102	98	117	119	105	107	104	105	116	104	103	
Av. Diff.**	0	+1	-1	0	-1	+6	-1	+1	+1	+2	+1	+9	-2	-3	
Max. Diff.***	+8	+6	-4	+5	-6	+11	-5	+2	+4	+8	+8	+13	-6	-6	
	<u>G. E. Puncture</u>														
Institute	33	30	34	35	31	34	33	31	31	32	34	34	30	34	
Mill	34	29	35	--	31	34	31	32	33	33	--	32	--	--	
Av. Diff.**	+1	-1	+1	--	0	0	-2	+1	+2	+1	--	-2	--	--	
Max. Diff.***	+3	-4	+4	--	+2	-3	-4	+2	+3	+2	--	-3	--	--	

(Continued on next page.)

TABLE XX (Cont.)  
SUMMARY OF TEST RESULT COMPARISONS  
(Average Mill and Institute Results)

No. Samples Compared	A	B	C	D	E	F	Mills*								M	N	O
							G	H	I	J	L	<u>Tearing Strength, in</u>					
Institute	328	298	334	366	355	373	340	321	331	352	352	369	330	343			
Mill	328	282	318	371	345	372	330	321	362	352	348	407	329	327			
Av. Diff.**	0	-16	-16	+5	-10	-1	-10	0	+31	0	-4	+38	-1	-16			
Max. Diff.***	+45	-61	-51	+46	-17	+32	-30	-14	+85	+10	-39	+56	-50	-22			
<u>Tearing Strength, across</u>																	
Institute	366	355	380	391	349	414	373	364	384	367	384	389	371	367			
Mill	369	351	388	424	359	420	364	370	425	381	402	429	407	381			
Av. Diff.**	+3	-4	+8	+33	+10	+6	-9	+6	+41	+14	+18	+40	+36	+14			
Max. Diff.***	+25	-53	+30	+80	+38	+25	-44	+40	+64	+33	+40	+58	+46	+20			

\* Comparison based on averages involves only those samples on which mill test data were submitted.

\*\* Average difference is the difference between the Institute mill average and the mill average based on mill test data.

\*\*\* Maximum difference encountered in comparing the Institute average and the mill average for any sample submitted by that particular mill.



TABLE XXI

COMPARISON OF INSTITUTE-MILL DIFFERENCES BY PERIODS

	Basis Weight	Caliper	Average Difference, per cent			
			Bursting Strength	G. E. Puncture	Tearing in	Strength across
Mill A						
Current period	-0.2	+0.8	0	+3	0	+0.8
75th period	-0.5	0	+2	+6	-0.6	+0.8
74th period	-0.7	+2	0	+3	+1	-1
Mill B						
Current period	-0.9	-0.8	+0.9	-3	-5	-1
75th period	-0.9	-0.8	+0.8	-3	-6	+1
74th period	-2	+0.8	+2	-7	-5	+0.3
Mill C						
Current period	-0.5	-1	-0.9	+3	-5	+2
75th period	+1	-0.8	-4	0	-1	+7
74th period	-0.7	-2	-3	-3	-1	+6
Mill D						
Current period	+0.2	-2	0	—	+1	+8
75th period	0	0	-5	—	+5	+11
74th period	0	-0.8	-2	—	+1	+6
Mill E						
Current period	+0.5	-7	-1	0	-3	+3
75th period	+1	-5	-5	0	-10	-8
74th period	+2	-2	-6	+7	+0.6	-6
Mill F						
Current period	-0.5	-4	+5	0	-0.3	+1
75th period	+0.2	-2	-5	+6	+5	+7
74th period	-2	-3	-7	+8	-2	+0.7
Mill G						
Current period	+0.4	-2	-0.8	-6	-3	-2
75th period	+0.2	-0.8	-4	-6	-0.9	-4
74th period	-2	-0.8	-2	-6	+3	+1
Mill H						
Current period	+0.9	-2	+1	+3	0	+2
75th period	+0.7	0	-2	0	-2	+1
74th period	+0.7	0	-3	+3	-4	-4
Mill I						
Current period	-1	-2	+0.9	+6	+9	+11
75th period	-0.2	0	+3	+3	+11	+15
74th period	-2	-0.8	-4	+9	+12	+10
Mill J						
Current period	+1	-0.7	+2	+3	0	+4
75th period	+2	+2	0	+13	-2	+14
74th period	+2	0	-0.9	+10	-4	+5
Mill L						
Current period	-0.2	-2	+1	—	-1	+5

Current period	-0.2	+0.8	0	+3	0	+0.8
75th period	-0.5	0	+2	+6	-0.6	+0.8
74th period	-0.7	+2	0	+3	+1	-1
Mill B						
Current period	-0.9	-0.8	+0.9	-3	-5	-1
75th period	-0.9	-0.8	+0.8	-3	-6	+1
74th period	-2	+0.8	+2	-7	-5	+0.3
Mill C						
Current period	-0.5	-1	-0.9	+3	-5	+2
75th period	+1	-0.8	-4	0	-1	+7
74th period	-0.7	-2	-3	-3	-1	+6
Mill D						
Current period	+0.2	-2	0	-	+1	+8
75th period	0	0	-5	-	+5	+11
74th period	0	-0.8	-2	-	+1	+6
Mill E						
Current period	+0.5	-7	-1	0	-3	+3
75th period	+1	-5	-5	0	-10	-8
74th period	+2	-2	-6	+7	+0.6	-6
Mill F						
Current period	-0.5	-4	+5	0	-0.3	+1
75th period	+0.2	-2	-5	+6	+5	+7
74th period	-2	-3	-7	+8	-2	+0.7
Mill G						
Current period	+0.4	-2	-0.8	-6	-3	-2
75th period	+0.2	-0.8	-4	-6	-0.9	-4
74th period	-2	-0.8	-2	-6	+3	+1
Mill H						
Current period	+0.9	-2	+1	+3	0	+2
75th period	+0.7	0	-2	0	-2	+1
74th period	+0.7	0	-3	+3	-4	-4
Mill I						
Current period	-1	-2	+0.9	+6	+9	+11
75th period	-0.2	0	+3	+3	+11	+15
74th period	-2	-0.8	-4	+9	+12	+10
Mill J						
Current period	+1	-0.7	+2	+3	0	+4
75th period	+2	+2	0	+13	-2	+14
74th period	+2	0	-0.9	+10	-4	+5
Mill L						
Current period	-0.2	-2	+1	-	-1	+5
75th period	0	-2	-1	-	+4	+7
74th period	-1	-2	+0.9	-	+11	+14
Mill M						
Current period	-1	-7	+8	-6	+10	+10
75th period	0	-5	+4	0	+12	+11
74th period	-1	-7	+4	-6	+7	+10
Mill N						
Current period	-0.5	-2	-2	-	-0.3	+10
75th period	-0.2	+2	-6	-	+0.9	+12
74th period	-0.5	-2	-5	-	-2	+12
Mill O						
Current period	+0.7	0	-3	-	-5	+4
75th period	+2	+2	-6	-	-6	+3
74th period	+0.2	+2	-0.9	-	-1	+6

TABLE XXII  
SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953

Institute Data versus Mill Data																		
Mch. No.	Basis Weight, lb.		Caliper, Points		Bursting Strength, p.s.i. gage		G.E. Puncture, units		Elmendorf Tear, g./sheet		Across							
	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.			
	<u>Mill A -- 42-lb. Linerboard</u>																	
1	42.0	42.5	+0.5	12.3	12.4	+0.1	118	112	- 6	34	35	+ 1	317 <sup>a</sup>	309	- 8	385 <sup>a</sup>	388	+ 3
1	42.2	42.7	+0.5	12.2	12.2	0 0	112	112	0	35	35	0	325 <sup>a</sup>	309	-16	389 <sup>a</sup>	374	-15
1	43.2	42.7	-0.5	13.1	13.0	-0.1	108	116	+ 8	34	34	0	300 <sup>a</sup>	345	+45	369 <sup>a</sup>	383	+14
2	42.9	43.0	+0.1	13.1	13.2	+0.1	112	110	- 2	32	35	+ 3	325 <sup>a</sup>	354	+29	360 <sup>a</sup>	385	+25
1	42.7	42.4	-0.3	12.7	12.8	+0.1	108	110	+ 2	31	30	- 1	317 <sup>a</sup>	325	+ 8	363 <sup>a</sup>	354	- 9
1	42.6	42.5	-0.1	12.4	12.7	+0.3	111	108	- 3	31	31	0	316 <sup>a</sup>	321	+ 5	361 <sup>a</sup>	344	-17
2	43.2	42.6	-0.6	13.0	13.1	+0.1	112	111	- 1	32	33	+ 1	313 <sup>a</sup>	332	+19	343 <sup>a</sup>	366	+23
2	43.6	43.0	-0.6	12.9	13.0	+0.1	112	112	0	37	35	- 2	365 <sup>a</sup>	334	-31	385 <sup>a</sup>	392	+ 7
1	42.0	42.4	+0.4	12.0	12.1	+0.1	111	113	+ 2	32	34	+ 2	347 <sup>a</sup>	322	-25	349 <sup>a</sup>	352	+ 3
1	42.4	42.8	+0.4	11.9	12.1	+0.2	117	114	- 3	32	35	+ 3	358 <sup>a</sup>	326	-32	358 <sup>a</sup>	355	- 3
	42.7	42.6	-0.1	12.6	12.7	+0.1	112	112	0	33	34	+ 1	328	328	0	366	369	+3

Readings for one or more specimens which tore beyond the 3/8-inch limit.

Age data are calculated from the totals of the individual readings.

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 19

[illegible]

155701	A-484	WF1S	9/20/53	1	42.0	42.5	+0.5	12.3	12.4	+0.1	118	112	-6	34	35	+1	317 <sup>a</sup>	309	-8
155702	A-485	WF1S	9/21/53	1	42.2	42.7	+0.5	12.2	12.2	0.0	112	112	0	35	35	0	325 <sup>a</sup>	309	-16
155782	A-486	WF1S	9/30/53	1	43.2	42.7	-0.5	13.1	13.0	-0.1	108	116	+8	34	34	0	300 <sup>a</sup>	345	+45
155783	A-487	WF1S	9/30/53	2	42.9	43.0	+0.1	13.1	13.2	+0.1	112	110	-2	32	35	+3	325 <sup>a</sup>	354	+29
155861	A-488	WF1S	10/5/53	1	42.7	42.4	-0.3	12.7	12.8	+0.1	108	110	+2	31	30	-1	317 <sup>a</sup>	325	+8
155862	A-489	WF1S	10/5/53	1	42.6	42.5	-0.1	12.4	12.7	+0.3	111	108	-3	31	31	0	316 <sup>a</sup>	321	+5
155900	A-490	WF1S	10/13/53	2	43.2	42.6	-0.6	13.0	13.1	+0.1	112	111	-1	32	33	+1	313 <sup>a</sup>	332	+19
155901	A-491	WF1S	10/15/53	2	43.6	43.0	-0.6	12.3	13.0	+0.1	112	112	0	37	35	-2	365 <sup>a</sup>	334	-31
155958	A-492	WF1S	10/18/53	1	42.0	42.4	+0.4	12.0	12.1	+0.1	111	113	+2	32	34	+2	347 <sup>a</sup>	322	-25
155959	A-493	WF1S	10/20/53	1	42.4	42.8	+0.4	11.9	12.1	+0.2	117	114	-3	32	35	+3	358 <sup>a</sup>	326	-32
Current Mill Average:					42.7	42.6	-0.1	12.6	12.7	+0.1	112	112	0	33	34	+1	328	328	0

Note: All "current mill average" data are calculated from the totals of the individual readings.



TABLE XXIII

## SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

## Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmen In Mill					
					IPC	Diff.	IPC	Diff.	IPC	Diff.	IPC	Diff.						
Mill B--42-lb. Linerboard																		
155703	B-875	WF1S	9/15/53	1	43.1	42.6	-0.5	12.6	12.4	-0.2	118	118	0	31	31	0	292a	281
155704	B-876	WF1S	9/15/53	1	42.9	42.2	-0.7	12.8	12.4	-0.4	120	119	-1	29	30	+	284a	279
155705	B-877	WF1S	9/15/53	1	43.0	42.4	-0.6	12.7	12.4	-0.3	116	118	+2	30	30	0	319a	271
155706	B-878	WF1S	9/15/53	1	43.2	42.7	-0.5	12.7	12.4	-0.3	116	118	+2	30	31	+	309a	287
155754	B-879	WF1S	9/22/53	1	43.3	43.0	-0.3	13.1	13.0	-0.1	117	119	+2	30	30	0	288	305
155755	B-880	WF1S	9/22/53	1	43.7	43.3	-0.4	13.1	13.0	-0.1	116	118	+2	30	29	-1	315a	297
155756	B-881	WF1S	9/22/53	1	43.2	42.8	-0.4	13.1	13.0	-0.1	116	117	+1	29	29	0	307a	285
155757	B-882	WF1S	9/22/53	1	43.3	43.0	-0.3	13.1	13.0	-0.1	113	118	+5	30	30	0	294	306
155816	B-883	WF1S	9/28/53	1	42.9	43.0	+0.1	12.7	12.4	-0.3	117	116	-1	30	30	0	298	295
155817	B-884	WF1S	9/28/53	1	42.9	43.0	+0.1	12.5	12.7	+0.2	120	118	-2	31	29	-2	302a	297
155818	B-885	WF1S	9/28/53	1	43.5	43.4	-0.1	13.1	13.0	-0.1	115	116	+3	30	30	0	295a	309
155819	B-886	WF1S	9/28/53	1	43.6	43.4	-0.2	13.1	13.0	-0.1	115	117	+2	29	29	0	299a	309
155820	B-887	WF1S	10/6/53	1	43.0	42.5	-0.5	12.7	12.7	0.0	107	113	+6	28	26	-2	282	267
155821	B-888	WF1S	10/6/53	1	43.6	42.8	-0.8	12.9	12.7	-0.2	108	110	+2	28	26	-2	287a	267
155822	B-889	WF1S	10/6/53	1	42.6	42.8	+0.2	12.8	12.6	-0.2	106	108	+2	29	26	-3	285a	285
155823	B-890	WF1S	10/6/53	1	43.2	42.7	-0.5	12.7	12.6	-0.1	107	110	+3	30	26	-4	273	271
155902	B-891	WF1S	10/12/53	1	43.7	43.0	-0.7	12.9	12.9	0.0	111	109	-2	31	29	-2	303a	261
155903	B-892	WF1S	10/12/53	1	43.6	43.1	-0.5	12.9	12.9	0.0	106	109	+3	31	29	-2	304a	255
155929	B-893	WF1S	10/12/53	1	43.5	43.2	-0.3	12.7	12.9	+0.2	109	108	-1	30	28	-2	303a	242
155904	B-894	WF1S	10/12/53	1	43.5	43.2	-0.3	12.8	12.8	0.0	106	108	+2	30	29	-1	315a	267
Current Mill Average:					43.3	42.9	-0.4	12.8	12.7	-0.1	113	114	+1	30	29	-1	298	282

<sup>a</sup>This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.



TABLE XXIV

## SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

## Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Diff.	Bursting Strength, p.s.i. gage		G. E. Puncture, units		IPC	Mill	Elmen In Mill		
					IPC	lb.	IPC	points		IPC	Diff.	IPC	Diff.				IPC	Diff.
					IPC	lb.	IPC	points		IPC	Diff.	IPC	Diff.				IPC	Diff.
Mill C--42-lb. Linerboard																		
155829	C-507	W.F.	10/ 2/53	1	44.4	44.0	-0.4	14.8	14.5	-0.3	102	101	- 1	38	0	357a	324	
155830	C-508	W.F.	10/ 2/53	1	44.3	44.1	-0.2	14.5	14.4	-0.1	104	105	+ 1	37	0	359a	308	
155831	C-509	W.F.	10/ 5/53	1	43.5	43.2	-0.3	13.0	13.0	0.0	112	114	+ 2	32	34	313a	316	
155832	C-510	W.F.	10/ 5/53	1	43.4	43.3	-0.1	12.9	12.8	-0.1	114	112	- 2	33	- 1	316	310	
155833	C-511	W.F.	10/ 6/53	1	43.1	43.1	0.0	13.6	13.3	-0.3	116	113	- 3	34	0	329a	302	
155834	C-512	W.F.	10/ 6/53	1	43.1	42.8	-0.3	13.7	13.4	-0.3	112	110	- 2	34	0	329	316	
155835	C-513	W.F.	10/ 7/53	1	44.6	44.4	-0.2	14.0	13.8	-0.2	112	108	- 4	37	4	335	326	
155836	C-514	W.F.	10/ 7/53	1	44.2	44.1	-0.1	14.2	13.9	-0.3	109	106	- 3	37	4	333	339	
Current Mill Average:																		
					43.8	43.6	-0.2	13.8	13.6	-0.2	110	109	- 1	34	35	+ 1	334	318

<sup>a</sup> This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.



TABLE XXV

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Institute Data versus Mill Data													
1.	Basis Weight, lb	IPC	Mill Diff.	Caliper, points	Bursting		IPC Mill Diff.	G. E.		IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	Across g./sheet
					IPC	p.s.i. gage		IPC	units				
<u>Mill D-42-lb. Linerboard</u>													
42.8	43.4	+0.6	12.6	12.7	100	99	-1	36	365a	357	-8	381a	402 +21
44.8	45.2	+0.4	13.2	12.9	98	96	-2	37	403a	380	-23	396a	410 +14
42.5	42.5	0.0	11.9	11.8	103	101	-2	34	352a	358	+6	388a	395 +7
43.0	42.1	-0.9	12.1	11.9	106	106	0	34	367a	380	+13	381a	441 +60
42.4	43.3	+0.9	12.2	12.1	103	103	0	32	345a	346	+1	380a	392 +12
42.9	43.2	+0.3	12.1	12.1	106	106	0	33	352a	365	+13	391a	417 +26
45.2	45.0	-0.2	12.8	12.4	104	104	0	37	374a	362	-12	404a	421 +17
43.6	43.5	-0.1	12.8	12.3	105	103	-2	35	359a	405	+46	402a	482 +80
43.6	43.1	-0.5	12.7	12.2	101	100	-1	33	375a	398	+23	417a	476 +59
42.4	42.6	+0.2	12.3	12.3	97	102	+5	34	368a	360	-8	365a	405 +40
43.3	43.4	+0.1	12.5	12.3	102	102	0	35	366	371	+5	391	424 +33

TABLE XXVI

Mill E-42-lb. Linerboard																	
43.4	43.3	-0.1	15.5	14.1	-1.4	94	92	-2	31	30	- 1	363a	346	-17	358a	360	+ 2
42.4	43.4	+1.0	14.7	13.7	-1 0	87	92	+5	32	34	+ 2	356a	354	- 2	345a	383	+38
42.8	42.7	-0.1	14.3	13.3	-1.0	116	110	-6	31	29	- 2	345a	335	-10	343a	335	- 8
42.9	43.1	+0.2	14.8	13.7	-1.1	99	98	-1	31	31	0	355	345	-10	349	359	+10

s for one or more specimens which tore beyond the 3/8-inch limit.

ata are calculated from the totals of the individual readings.

TABLE XXV

## SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

## Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf, g./sheet			
					IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.				
Mill D-42-lb. Linerboard																
155763	D-698	W.F.	10/ 3/53	4	42.8	43.4	+0.6	12.7	12.6	-0.1	100	99	36	365a	357	- 8
155764	D-699	W.F.	10/ 4/53	4	44.8	45.2	+0.4	13.2	12.9	-0.3	98	96	37	403a	380	-23
155781	D-700	W.F.	10/ 5/53	4	42.5	42.5	0.0	11.9	11.8	-0.1	103	101	34	352a	358	+ 6
155804	D-701	W.F.	10/ 7/53	4	43.0	42.1	-0.9	12.1	11.9	-0.2	106	106	34	367a	380	+13
155813	D-702	W.F.	10/ 8/53	4	42.4	43.3	+0.9	12.2	12.1	-0.1	103	103	32	345a	346	+ 1
155854	D-703	W.F.	10/ 9/53	4	42.9	43.2	+0.3	12.1	12.1	0.0	106	106	33	352a	365	+13
155855	D-704	W.F.	10/10/53	4	45.2	45.0	-0.2	12.8	12.4	-0.4	104	104	37	374a	362	-12
155856	D-705	W.F.	10/11/53	4	43.6	43.5	-0.1	12.8	12.3	-0.5	105	103	35	359a	405	+46
155857	D-706	W.F.	10/12/53	4	43.6	43.1	-0.5	12.7	12.2	-0.5	101	100	33	375a	398	+23
155877	D-707	W.F.	10/13/53	4	42.4	42.6	+0.2	12.3	12.3	0.0	97	102	34	368a	360	- 8
Current Mill Average:					43.3	43.4	+0.1	12.5	12.3	-0.2	102	102	35	366	371	+ 5

TABLE XXVI

Mill E--42-lb. Linerboard																		
155739	E-34	W.F.	9/28/53	2	43.4	43.3	-0.1	15.5	14.1	-1.4	94	92	31	30	- 1	363a	346	-17
155881	E-37	W.F.	10/12/53	2	42.4	43.4	+1.0	14.7	13.7	-1.0	87	92	32	34	+ 2	356a	354	- 2
155955	E-38	W.F.	10/19/53	2	42.8	42.7	-0.1	14.3	13.3	-1.0	116	110	31	29	- 2	345a	335	-10
Current Mill Average:					42.9	43.1	+0.2	14.8	13.7	-1.1	99	98	31	31	0	355	345	-10

<sup>a</sup> This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXVII

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Institute Data versus Mill Data														
Basis Weight, lb.	Caliper, points	Bursting		G. E. Puncture, units	Elmendorf Tear, g./sheet		IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.					
		IPC Mill Diff.	Strength, p.s.i. gage		IPC Mill Diff.	In				Across				
											IPC Mill Diff.			
Mill F--42-lb. Linerboard														
41.6	41.2	-0.4	12.3	11.9	-0.4	116	108	- 8	347a	373	+26	398a	416	+18
43.2	42.5	-0.7	13.1	12.8	-0.3	111	121	+10	373a	361	-12	406a	427	+21
42.2	42.4	+0.2	13.5	12.9	-0.6	113	120	+ 7	372a	371	- 1	433a	428	- 5
41.6	41.2	-0.4	12.4	12.2	-0.2	103	114	+11	361a	393	+32	403a	428	+25
42.3	42.0	-0.3	13.3	12.8	-0.5	109	118	+ 9	365a	375	+10	423a	423	0
41.5	41.2	-0.3	13.4	12.7	-0.7	108	119	+11	383a	370	-13	409a	408	- 1
42.1	41.9	-0.2	13.5	13.0	-0.5	113	118	+ 5	391a	369	-22	429a	405	-24
41.4	41.7	+0.3	13.5	12.8	-0.7	111	119	+ 8	395	367	-28	411a	423	+12
42.0	41.8	-0.2	13.1	12.6	-0.5	111	117	+ 6	373	372	- 1	414	420	+ 6

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

TABLE XXVIII

Mill G-42-1b. Linerboard

a This average includes the readings for one or more specimens which tore beyond the  $3/8$ -inch limit.

**Note:** All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXIX

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Institute Data versus Mill Data																		
ch. o.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendorf Tear, g./sheet									
									In		Across		Diff.		IPC			
	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.			
	Mill H--42-lb. Linerboard																	
2	42.8	43.5	+0.7	12.7	12.6	-0.1	101	103	+2	31	32	+1	310	311	+1	361a	358	-3
2	43.3	43.2	-0.1	12.7	12.5	-0.2	102	103	+1	31	31	0	317a	322	+5	336a	376	+40
2	43.6	43.5	-0.1	12.6	12.6	0.0	103	104	+1	30	32	+2	313	319	+6	371a	363	-8
2	43.8	43.7	-0.1	12.8	12.5	-0.3	105	105	0	32	32	0	324	335	+11	358a	359	+1
2	41.8	42.8	+1.0	12.4	12.4	0.0	105	105	0	33	33	0	329	315	-14	387a	387	0
2	42.8	43.4	+0.6	12.2	12.1	-0.1	107	107	0	33	33	0	331a	325	-6	370a	378	+8
	43.0	43.4	+0.4	12.6	12.4	-0.2	104	105	+1	31	32	+1	321	321	0	364	370	+6

TABLE XXX

Mill I--42-lb. Linerboard																		
1	42.7	42.5	-0.2	13.0	12.8	-0.2	104	106	+ 2	30	32	+ 2	315a	335	+20	374a	406	+32
1	43.0	42.5	-0.5	13.7	13.3	-0.4	107	107	0	33	35	+ 2	309	394	+85	385a	449	+64
1	42.7	42.5	-0.2	13.2	13.1	-0.1	102	106	+ 4	30	33	+ 3	342a	351	+ 9	367a	427	+60
1	42.5	42.6	+0.1	13.4	13.3	-0.1	106	106	0	32	34	+ 2	326a	348	+22	394a	421	+27
1	42.7	42.6	-0.1	13.4	13.1	-0.3	105	107	+ 2	32	34	+ 2	320a	347	+27	397a	431	+34
1	43.8	42.3	-1.5	13.5	13.0	-0.5	105	108	+ 3	31	30	- 1	362a	360	- 2	393a	426	+33
1	43.3	42.6	-0.7	13.6	12.9	-0.7	111	107	- 4	32	34	+ 2	351	382	+31	389a	420	+31
1	43.2	42.7	-0.5	13.3	13.1	-0.2	108	107	- 1	32	35	+ 3	321a	379	+58	375a	421	+46
	43.0	42.5	-0.5	13.4	13.1	-0.3	106	107	+ 1	31	33	+ 2	331	362	+31	384	425	+41

ings for one or more specimens which tore beyond the 3/8-inch limit.

' data are calculated from the totals of the individual readings.

TABLE XXIX

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Institute Data versus Mill Data																			
File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight,		Caliper,		Bursting				G. E.		IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	Elmend g./ In Mill Diff	
					lb.	IPC	Diff.	IPC	points	Diff.	IPC	p.s.i. gage	IPC	units					
<u>Mill H--42-lb. Linerboard</u>																			
155797	H-419	WFLS	9/28/53	2	42.8	43.5	+0.7	12.7	12.6	-0.1	101	103	+ 2	31	32	+ 1	310	311	+ 1
155798	H-420	WFLS	9/29/53	2	43.3	43.2	-0.1	12.7	12.5	-0.2	102	103	+ 1	31	31	0	317a	322	+ 5
155863	H-421	WFLS	10/ 6/53	2	43.6	43.5	-0.1	12.6	12.6	0.0	103	104	+ 1	30	32	+ 2	313	319	+ 6
155864	H-422	WFLS	10/ 7/53	2	43.8	43.7	-0.1	12.8	12.5	-0.3	105	105	0	32	32	0	324	335	+11
155930	H-423	WFLS	10/11/53	2	41.8	42.8	+1.0	12.4	12.4	0.0	105	105	0	33	33	0	329	315	-14
155931	H-424	WFLS	10/12/53	2	42.8	43.4	+0.6	12.2	12.1	-0.1	107	107	0	33	33	0	331a	325	- 6
Current Mill Average:					43.0	43.4	+0.4	12.6	12.4	-0.2	104	105	+ 1	31	32	+ 1	321	321	0

TABLE XXX

Mill I--42-lb. Linerboard															
155709	I-329	WFLS	9/22/53	1	42.7	42.5	-0.2	13.0	12.8	-0.2	104	106	+ 2		
155736	I-330	WFLS	9/ 23/53	1	43.0	42.5	-0.5	13.7	13.3	-0.4	107	107	0		
155741	I-331	WFLS	9/28/53	1	42.7	42.5	-0.2	13.2	13.1	-0.1	102	106	+ 4		
155752	I-332	WFLS	9/29/53	1	42.5	42.6	+0.1	13.4	13.3	-0.1	106	106	0		
155812	I-333	WFLS	10/ 6/53	1	42.7	42.6	-0.1	13.4	13.1	-0.3	105	107	+ 2		
155887	I-334	WFLS	10/ 6/53	1	43.8	42.3	-1.5	13.5	13.0	-0.5	105	108	+ 3		
155905	I-335	WFLS	10/14/53	1	43.3	42.6	-0.7	13.6	12.9	-0.7	111	107	- 4		
155906	I-336	WFLS	10/15/53	1	43.2	42.7	-0.5	13.3	13.1	-0.2	108	107	- 1		
Current Mill Average:					43.0	42.5	-0.5	13.4	13.1	-0.3	106	107	+ 1		

<sup>a</sup> This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.



TABLE XXXI

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.	IPC	IPC Mill Diff.	Caliper, points	IPC Mill Diff.	Bursting Strength, p.s.i. gage	G. E. Puncture, units	IPC Mill Diff.	IPC	IPC Mill Diff.	Elmend g./ in
155733	J-449	B.F.	9/22/53	--	42.3	42.9	+0.6	14.1	14.0	-0.1	100	97 - 3	31	32	349
155734	J-450	B.F.	9/22/53	--	42.2	43.0	+0.8	14.2	14.0	-0.2	99	99 0	31	32	346
155827	J-451	B.F.	10/ 2/53	--	42.9	43.5	+0.6	13.9	13.7	-0.2	106	108 + 2	33	34	352
155828	J-452	B.F.	10/ 2/53	--	43.1	43.5	+0.4	13.8	13.8	0.0	102	110 + 8	33	35	363
Current Mill Average:															
					42.6	43.2	+0.6	14.0	13.9	-0.1	102	104 + 2	32	33	352
															0

TABLE XXXII

Mill K--42-lb. Linerboard  
No samples submitted.

TABLE XXXIII

155713	L-213	9/15/53	1	43.3	42.8	-0.5	13.3	12.6	-0.7	110	108	- 2	33	334a	351	+17
155714	L-214	9/16/53	1	43.4	43.0	-0.4	12.9	13.0	+0.1	106	105	- 1	33	349a	343	- 6
155824	L-215	9/26/53	1	42.4	42.9	+0.5	14.9	14.3	-0.6	98	102	+ 4	35	373a	382	+ 9
155825	L-216	9/27/53	1	42.6	43.1	+0.5	13.3	13.0	-0.3	107	105	- 2	34	347a	345	- 2
155956	L-217	10/ 4/53	1	43.6	43.3	-0.3	13.8	13.7	-0.1	105	106	+ 1	34	343a	334	- 9
155957	L-218	10/ 5/53	1	42.7	42.9	+0.2	14.9	14.8	-0.1	97	105	+ 8	36	379a	358	-21
155996	L-219	10/15/53	1	43.4	43.6	+0.2	14.8	14.4	-0.4	106	105	- 1	35	350	311	-39
155997	L-220	10/17/53	1	43.8	43.3	-0.5	13.8	13.7	-0.1	104	106	+ 2	33	344a	356	+12
Current Mill Average:				43.2	43.1	-0.1	14.0	13.7	-0.3	104	105	+ 1	34	352	348	- 4
This average includes the readings for one or more specimens which																

This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.



data are calculated from the totals of the individual readings.

TABLE XXXIV

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)  
Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points	IPC Mill	Diff.	Bursting Strength, p.s.i. gage		IPC Mill	Diff.	IPC Mill	Diff.	In Mill	Elmendorf g./she		
					IPC	Mill				Diff.	IPC							Mill	Diff.
Mill M--42-lb. Linerboard																			
155707	M-195	W.	9/18/53	4	43.1	42.5	-0.6	13.9	13.0	-0.9	98	106	+ 8	35	32	- 3	402a	452	+50
155774	M-196	W.	9/24/53	2	42.0	41.5	-0.5	13.8	12.7	-1.1	101	113	+12	32	30	- 2	373a	388	+15
155794	M-197	W.	9/27/53	2	42.8	43.2	+0.4	13.7	13.0	-0.7	109	118	+ 9	35	35	0	360a	416	+56
155880	M-198	W.	10/ 8/53	2	44.1	43.1	-1.0	13.8	12.7	-1.1	118	124	+ 6	34	31	- 3	365a	393	+28
155938	M-199	W.	8/14/53	2	42.4	41.9	-0.5	13.8	12.8	-1.0	107	120	+13	33	31	- 2	344a	385	+41
Current Mill Average:					42.9	42.4	-0.5	13.8	12.8	-1.0	107	116	+ 9	34	32	- 2	369	407	+38

TABLE XXXV

Mill N--42-lb. Linerboard																	
155742	N-26	W.F.	9/23/53	1	41.6	41.7	+0.1	12.1	11.7	-0.4	105	100	- 5	29	340a	355	+15
155743	N-27	WFLS	9/26/53	1	41.9	42.0	+0.1	12.9	12.5	-0.4	104	101	- 3	30	347a	334	-13
155744	N-28	--	9/28/53	1	42.2	41.9	-0.3	12.2	12.0	-0.2	104	106	+ 2	32	336a	347	+11
155785	N-29	W.F.	10/ 3/53	1	42.1	42.0	-0.1	12.4	12.0	-0.4	112	106	- 6	30	312a	324	+12
155826	N-30	WFLS	10/ 6/53	1	43.2	42.4	-0.8	12.0	11.8	-0.2	99	102	+ 3	30	317a	336	+19
155872	N-31	WFLS	10/11/53	1	42.6	42.3	-0.3	12.2	11.9	-0.3	106	102	- 4	28	318a	318	0
155939	N-32	--	10/15/53	1	42.2	41.7	-0.5	12.3	11.9	-0.4	105	105	0	31	318	315	- 3
155940	N-33	W.F.	10/15/53	1	41.8	41.8	0.0	12.3	12.0	-0.3	107	106	- 1	30	317	319	+ 2
155966	N-34	WFLS	10/20/53	1	42.2	42.3	+0.1	12.4	12.0	-0.4	114	108	- 6	32	361a	311	-50
Current Mill Average:					42.2	42.0	-0.2	12.3	12.0	-0.3	106	104	- 2	30	330	329	- 1

<sup>a</sup> This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXVI

SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

Institute Data versus Mill Data									
Basis Weight, lb.	IPC Mill Diff.	Caliper, points	Bursting		G. E.		Elmendorf Tear,		
			Strength,	p.s.i. gage	Puncture, units	IPC Mill Diff.	In	g./sheet	Across
			IPC	IPC	IPC	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.	IPC Mill Diff.
<u>Mill 0--42-lb. Linerboard</u>									
41.5	41.8	+0.3	12.3	12.3	0.0	108 102 - 6	33	337a	315 -22 369a 377 + 8
41.6	41.7	+0.1	12.1	12.1	0.0	104 103 - 1	35	349a	340 - 9 364a 384 +20
41.5	41.8	+0.3	12.2	12.2	0.0	106 103 - 3	34	343	327 -16 367 381 +14

TABLE XXXVII

<u>Mill E--44/46-lb. Drum Linerboard</u>									
47.5	47.0	-0.5	15.2	13.8	-1.4	106 100 - 6	38	385a	389 + 4 399a 398 - 1
46.4	46.8	+0.4	14.3	13	-1.3	96 90 - 6	37	417a	386 -29 389a 348 -41
47.0	46.9	-0.1	14.7	13.4	-1.3	101 95 - 6	37	401	388 -13 394 373 -21
<u>Mill E--90 lb. Linerboard</u>									
91.5	91.8	+0.3	28.6	27.2	-1.4	156 160 + 4	101 102 +1	769a	768 - 1 884a 892 + 8

ings for one or more specimens which tore beyond the 3/8-inch limit.  
data are calculated from the totals of the individual readings.

TABLE XXXVI

## SUMMARY OF INDIVIDUAL TEST LOTS--OCTOBER 1 THROUGH OCTOBER 31, 1953 (continued)

## Institute Data versus Mill Data

File No.	Mill Code	Fin- ish	Date Made	Mch. No.	Basis Weight, lb.		Caliper, points		Bursting Strength, p.s.i. gage		G. E. Puncture, units		Elmendo: g./sq in				
					IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.	IPC	Mill Diff.			
<u>Mill 0--42-lb. Linerboard</u>																	
155740	C-8	W.F.	10/ 1/53	3	41.5	41.8	+0.3	12.3	12.3	0.0	108	102	- 6	33	337a	315	-22
155886	O-9	W.F.	10/ 14/53	3	41.6	41.7	+0.1	12.1	12.1	0.0	104	103	- 1	35	349a	340	- 9
Current Mill Average:					41.5	41.8	+0.3	12.2	12.2	0.0	106	103	- 3	34	343	327	-16

TABLE XXXVII

## Mill E--44/46-lb. Drum Linerboard

155784	E-35	W.F.	10/ 5/53	2	47.5	47.0 -0.5	15.2	13.8	-1.4	106	100 - 6	38	39	+ 1	385a	389	+ 4
155811	E-36	W.F.	10/ 7/53	2	46.4	46.8 +0.4	14.3	13	-1.3	96	90 - 6	37	36	- 1	417a	388	-29
Current Mill Average:					47.0	46.9 -0.1	14.7	13.4	-1.3	101	95 - 6	37	37	0	401	388	-13

## Mill E--90 lb. Linerboard

155710	E-33	W.F.	9/23/53	2	91.5	91.8 +0.3	28.6	27.2	-1.4	156	160 + 4	101	102	+1	769a	768	- 1
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<sup>a</sup> This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.